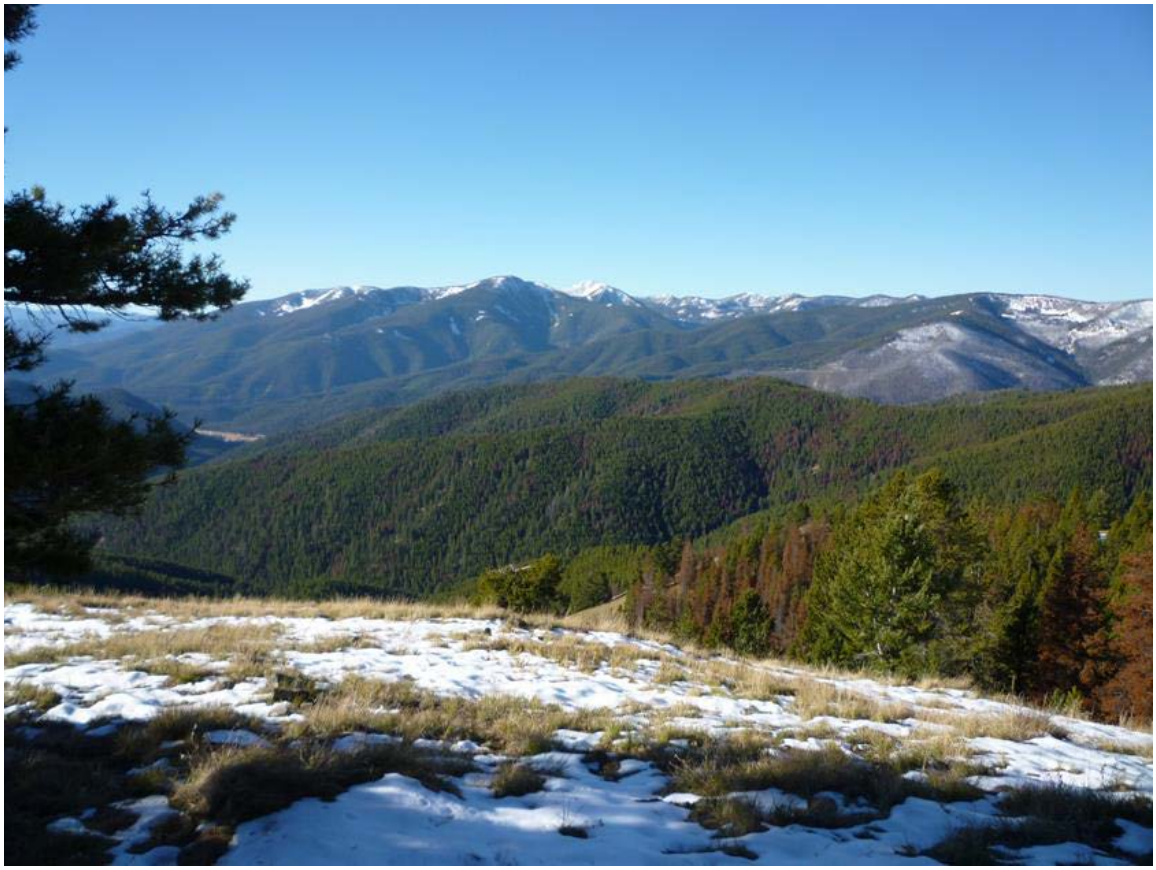
United States Department of Agriculture

Draft Record of Decision

Upper North Fork HFRA Ecosystem Restoration Project



Forest Service | Salmon-Challis National Forest | North Fork Ranger District | Lemhi County, Idaho | July 2014

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Decision and Reason for the Decision

Background

This project is designed to complement other existing, ongoing and planned fuels treatments within the Upper North Fork River drainage. This drainage is a mosaic of private and public land, and as such a landscape level management approach was used for developing this proposal. The project area includes the communities of Gibbonsville and North Fork that have widespread private land resources, and have been identified as “at-risk” communities by Lemhi County and the State of Idaho. Lemhi County revised its Wildland/Urban Interface Fire Mitigation Plan in 2006 (also known as a Lemhi County Wildfire Prevention Plan) designating the North Fork drainage as high priority for hazardous fuel reduction.

This project is a collaborative effort between the Forest Service and numerous outside partners including State, and Tribal governments private individuals, industry, environmental and other groups and agencies, particularly the Lemhi County Forest Restoration Group. Discussions with the Lemhi County Forest Restoration Group have been ongoing since 2008. The Lemhi County Forest Restoration Group has held meetings, conference calls, and field trips contributing to the common goal of landscape scale ecosystem restoration.

The Upper North Fork project area includes the State Highway 93 transportation corridor and the Salmon River Scenic Byway, private lands, residences and a winter recreation ski facility that fall within the Lemhi County wildland-urban interface. The purpose of this project is to reduce hazardous natural fuels, restore plant communities, improve fish and wildlife habitat, and create an environment that is more resilient to disturbance as part of a fire-adapted landscape. This project is needed in order to complement other completed, ongoing and planned fuels and vegetation treatments surrounding “at-risk” communities within the North Fork drainage; all of which address forest health conditions that are rapidly deteriorating.

Existing forest stand structure and forest vegetation have created the potential for large-scale, high-intensity wildfires that threaten human life, property, and natural resources. This potential coupled with the project area’s high frequency of lightning-caused wildfires has created an environment where, if no action is taken, severe impacts from wildland fire would likely occur. This leaves surrounding communities and natural resources vulnerable to damage caused by these fires.

In addition, the biodiversity of the project area is at risk. Quaking aspen stands provide substantial habitat value for wildlife and contribute to landscape habitat diversity. However, many historic aspen stands in Central Idaho have been lost, and many others are either regenerating poorly or are otherwise in decline. Likewise, whitebark pine is the first tree species in the Northwest to be listed as a candidate for the threatened and endangered species list because of a deadly combination of blister rust and mountain pine beetle. Historic logging practices and fire suppression have also contributed to a decline in ponderosa pine, a fire resilient species.

Lemhi County has developed its county wildfire protection plan to include localized mapping and definition of wildland-urban interface areas; and has designated the North Fork area as high priority for hazardous fuels reduction treatment. Private developments, such as Moose Creek Estates, have completed planning and hazard reduction treatments required to enroll as “Fire-Wise Communities” in the State of Idaho. Because there is an identified need to reduce hazardous fuels, and because the County has classified the project area as wildland-urban interface, this project falls under the authority of the Healthy Forest Restoration Act (HFRA).

Decision

Based upon my review of all alternatives, I have decided to implement alternative 1 of the Upper North Fork HFRA Ecosystem Restoration Project. This decision includes mechanical thinning from below to reduce understory and ladder fuels on approximately 4,535 acres within the project area. It also includes using ground based tractor harvest systems on 2,364 acres, skyline yarding systems on 1,032 acres, and helicopter tree removal on 1,139 acres.

My decision will help to create strategically located fuel breaks, contribute to meadow rejuvenation, and regenerate whitebark pine and aspen stands within the project area. Approximately 970 acres of strategically located shaded fuel breaks will be created and 1,291 acres of meadows will be treated as a result of project implementation. Aspen and whitebark pine stands will also be opportunistically treated during implementation of other projects.

My decision includes the use of prescribed fire to manage hazardous fuels accumulation and to treat precommercial and commercial units post-harvest. Both commercial and precommercial thinning units will receive follow-up prescribed fire treatments. In order to implement burning, it is possible that up to 200 miles of fireline could be constructed around commercial thinning units including helicopter, precommercial thin, skyline, and tractor units. Although it is unlikely that all 200 miles of fireline will be needed to implement the project, the analysis used this figure to fully evaluate the potential environmental effects.

My decision will help to reduce ladder fuel accumulations within the project area. Ladder fuels will be reduced along specific access roads within designated shaded fuel break units. This treatment will consist of 400 feet of ladder fuel reduction on each side of the road. Where commercial thinning is not planned this would be accomplished through hand felling, hand piling and burning (noncommercial 18 by 18 foot spacing). Precommercial thinning of trees less than 7 inches diameter breast height (dbh) will be conducted in helicopter, tractor, and skyline units following commercial thinning to reduce ladder fuels and create 18 by 18 foot spacing in some, but not all pockets of healthy saplings for crown separation. Precommercial thinning will also be conducted on 1,269 acres in selected units. Noncommercial fuel treatments will occur on 445 acres using a combination of burning, hand thinning, pruning, and hand piling to achieve the desired level of fuels reduction in each of the proposed units. A number of units from about 500-5,000 acres over throughout the 40, 273 acre project area (excluding Lost Trail Ski Area and all inholdings) will be prescribed burned primarily during the spring and fall over a 10 year period.

My decision will help to protect and enhance old growth stands. All of the designated old growth stands within the project area will be treated through ladder fuel reduction in the form of low intensity fire, thinning of small diameter trees, or a combination of both.

My decision includes utilizing existing system and non-system roads and routes, the construction of temporary roads, and the rehabilitation and restoration of numerous roads and routes to meet project objectives. The project will use up to 94 miles of existing system roads and an estimated 26 miles of non-system roads to complete treatments. The project will include constructing 13.9 miles of new temporary routes of which 2.1 miles will be located in an Idaho roadless area. Additionally, 12.2 miles of route will be upgraded to meet road standards on routes that are currently closed. An additional 66.3 miles of route that currently has a closed designation will be rehabilitated through a variety of restoration treatments. No changes in public access are proposed during or after the implementation of this project.

My decision includes two site specific Forest Plan amendments to meet our project objectives. These amendments change current requirements and prescriptions which limit treatments and activities necessary to attain the desired future condition in the project area.

Site Specific Amendment #1-We will manage unplanned ignitions to meet project objectives, which more closely aligns us with Federal Wildland Fire policy.

Site Specific Amendment #3- I am modifying the Pacific Anadromous Fish Strategy (PACFISH) riparian habitat conservation area buffer widths to the road to allow mechanical treatment for fuel reduction above the road outside of the modified riparian habitat conservation areas. This modification will only take place where there is a road within the riparian habitat conservation area buffer between the unit boundary and the stream channel.

Site Specific Amendment #2-Big game winter range is unnecessary, so I am not including it in my decision. I provide the rationale for dropping this amendment under the wildlife habitat heading in the issues section of this document.

Rationale for the Decision

The selected alternative is alternative 1 including the design features and monitoring associated with this alternative (appendix A). This alternative was selected after considering how it meets the purpose and need, how it addresses the key issues, the trade-off of environmental effects identified in the Final Environmental Impact Statement, and it's responsiveness to public comments received on the draft environmental impact statement.

Purpose and Need

Alternative 1 was selected because it is the best alternative for meeting the purpose and need for this project. The purpose of the Upper North Fork HFRA Ecosystem Restoration Project is to reduce hazardous fuels, restore plant communities, improve fish and wildlife habitat, and to create an environment that is more resilient to disturbance as part of a fire-adapted ecosystem. The project is needed in order to compliment other completed, ongoing, and planned fuels and vegetation treatments surrounding "at-risk" communities within the North Fork drainage; all of which address forest health conditions that are rapidly deteriorating.

The no-action alternative would not meet the purpose and need of the project. There would be no hazardous fuels reduction treatments, habitat improvement projects, or any activities that would promote an environment that is more resilient to disturbance as part of a fire adapted ecosystem. Based upon recent experience and historic trends, the potential for a landscape scale, stand replacing wildland fire during summer drought and extreme weather conditions would continue to be a plausible event in the future.

Alternative 2 differs from alternative 1 in that no new temporary road construction would occur, harvest activities would include commercial thinning from below to reduce the understory on approximately 4,444 acres of the project area, and strategically located fuel break treatments would occur on approximately 1,050 acres. There would only be 1,899 acres of tractor logging, 596 acres of skyline logging and 1,949 acres of helicopter logging. Depending upon market conditions, the economic viability of helicopter logging can vary over time. Helicopter logging is very expensive and there are no local companies remaining that perform such work. Utilizing contractors from outside locations conflicts with the local collaborative group's goal of boosting the local economy. There are several tractor and skyline logging operators within the local area. With helicopter logging, the value of timber should ideally be high enough to offset costs and the timber in this project area may not justify these types of operations in today's market conditions. As a result, it is possible that helicopter units may not be treated. Because of this, alternative 1, with nearly half as many acres of helicopter logging better meets the purpose and need of the project.

Under alternative 2, all proposed harvest units which would not be accessible without new temporary road construction would either be dropped from treatment, have modified boundaries, or harvest methods changed to be suitable with the available road system. Table 1, page vii of the Final Environmental Impact Statement displays the difference in acres treated between alternatives 1 and 2 for commercial thinning including tractor logging, skyline logging, and helicopter logging. The difference in acres treated by tractor and skyline logging between alternatives 1 and 2 is 887 acres. Alternative 2 includes 811 additional acres of helicopter logging. Dropping these acres from treatment would not meet the purpose and need of the project. Additionally and as described above, helicopter logging is expensive and depending upon market conditions, it may not be possible to treat these units.

Hazardous Fuels Reduction

Implementation of alternative 1 will have the greatest potential to reduce the accumulation of hazardous fuels within the wildland urban interface when compared to the no-action alternative and alternative 2. It is important to emphasize that many of the fuels treatments will be located in and around wildland-urban interface areas and will change fire behavior and reduce the future risk to firefighters, the public and private property. The proposed fuel treatments associated with alternative 1 will mitigate factors that tend to increase fire behavior potential (such as increased wind penetration, and increased grass and brush growth) by reducing horizontal and vertical fuel continuity, surface fuel accumulation and ladder fuels. Alternative 1 will also improve firefighter safety and the ability to suppress fire. As a result of implementing alternative 1, flame lengths will generally be less than 4 feet and fireline intensities should be low enough to allow for more direct firefighting tactics in the future. Alternative 1 will reduce the risk to life and property within the project area. In the event of a fire, evacuation of the public would be safer and more efficient knowing that the fire is on the ground and not running through the tree crowns. Following project implementation, post treatment conditions will allow for safer fire management actions due to lower flame lengths and more surface fire when compared to the no action alternative which would promote these conditions. Alternative 1 will also result in a higher torching index, meaning higher wind speeds would be required for any kind of crown fire. Alternative 1 will reduce the risk to other resources because of the reduction in potential for high severity wildfire unlike the no action alternative. Lastly, alternative 1 is consistent with the National Fire Plan, Forest Land and Resource Management Plan, and the Healthy Forest Initiative.

As described above for alternative 2 under Purpose and Need, all proposed harvest units not accessible without new temporary road construction would either be dropped from treatment, have modified boundaries, or harvest methods changed to be suitable with the available road system. Potentially dropping or modifying these units under alternative 2 would also impact the effectiveness of fuels reduction activities which would only partially achieve the purpose and need of the project.

Restoring Plant Communities

Alternative 1 would have a greater positive effect than alternative 2 and the no-action alternative on forest vegetation, species composition, vegetation structural classes, density/canopy cover, insect and disease susceptibility, and fire regime condition class (a measure of deviation from the historical range of variation). A summary of the positive effects from alternative 1 includes dramatic changes over the long run in response to altered fire regimes associated with the reintroduction of low and mixed severity fire. Low thinning and broadcast burning will focus on the removal of late-seral trees in subordinate canopy positions, and leave a well-stocked stand of remaining trees composed predominantly of the original species characterizing the cover type. Alternative 1 will also result in widespread conversion from mature forest to the understory reinitiation and multistoried forest classes due to the breakup of mature forest canopies from fire, mountain pine beetle, mechanical thinning activities, and expected tree regeneration. Alternative 1 will also reduce canopy cover, resulting in a distribution shift toward lower density classes.

High classes (relatively dense forests) would decrease, while lower classes (relatively sparse forests) would increase. Alternative 1 will help to promote insect and disease resistance of trees by promoting vigor and increased production of defensive chemical compounds. A reduction in stand density will also reduce overall susceptibility to defoliating insects such as Douglas-fir tussock moth and western spruce budworm. The combination of mechanical treatments and prescribed broadcast burning associated with alternative 1 will move much of the Upper North Fork project area toward a fire regime condition class of 1 (less than 33 percent departure from the historic range of variation).

Figure 1. Typical stand before treatment

Figure 2. Typical stand post-commercial thinning treatment

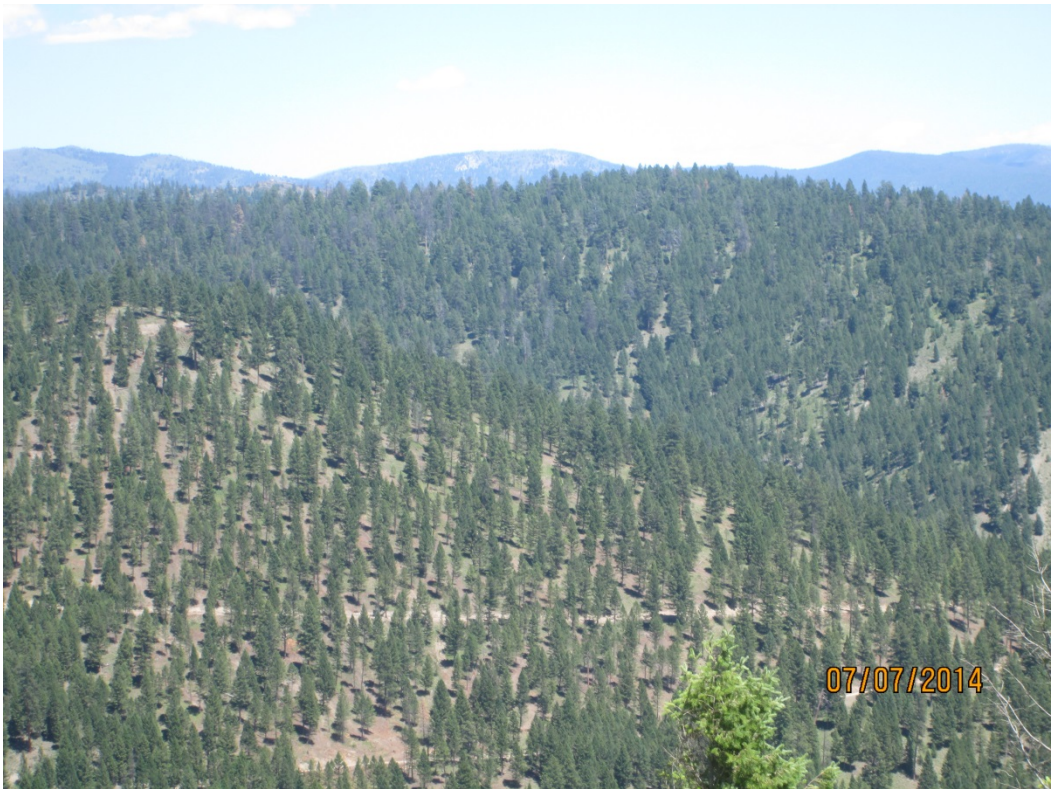

Figure 3. Typical post-commercial thinning treatment stand in the foreground (aerial view)

Alternative 1 will also treat more acres and thus be more effective in restoring plant communities than the no-action alternative and alternative 2. The no-action alternative will not treat any acres within the project area and thus will not help to restore plant communities. Table 1 on page vii of the Final Environmental Impact Statement displays treatment acres by implementation activity. When looking at all activity types, including prescribed burning, precommercial thinning, noncommercial fuels treatments, all commercial thinning (tractor, skyline, and helicopter), meadow treatments, and old growth treatments, alternative 1 treats the greatest number of acres and thus has the greatest potential to help restore plant communities throughout the project area.

Improvement of Fish and Wildlife Habitat

Alternative 1 and 2 have the same proposed aquatic habitat improvements, stream restoration and culvert replacements. When implemented, these activities will enhance beneficial uses within the analysis area unlike the no-action alternative. Vegetation management activities associated with alternative 1 will have the greatest potential impact on reducing the risk of a high severity fire and the potential negative impacts a fire could have to watersheds and streams. Under the no-action alternative, there is a greater chance of high severity wildfire which could increase the occurrence of hydrophobic soils, post fire soil erosion, water runoff, decreased lag time, and increased peak flows.

Vegetation and fuels reduction activities associated with alternative 1 will have the greatest potential impact in helping to reduce the potential effects of high severity fire on wildlife habitat when compared to the no-action alternative and alternative 2. Under the no-action alternative, there is an increased risk to some wildlife species and their habitats from severe wildfire. For species requiring forest habitat, especially the dense stands that now exist, a severe wildfire that eliminates most of the cover could have a very negative effect. There would likely be a loss of foraging, denning, resting, and/or cover habitat for many species. Overall, alternative 2 would not be as effective in preventing the occurrence of a high severity fire and negative impacts to wildlife habitat because this alternative proposes to treat fewer acres within the project area.

Alternative 1 has the greatest potential to improve habitat for several wildlife species. In addition to reducing the potential negative effects of severe wildfire, alternative 1 will also promote long term forest diversification of forest structure and movement towards a distribution that is more in line with the fire regime and potential vegetation. As such, the vegetative conditions would be more resilient to stand replacement events such as wildfire and insect and disease outbreaks. This in turn would benefit species like lynx and wolverine. For species such as wolves, it is likely that their prey (deer and elk) will benefit from fuels reduction treatments because there would be improvements to suitable grassland and forage in some areas that would result from thinning and prescribed burning activities. For species like boreal owl, implementation of fuels reduction and prescribed burning activities associated with alternative 1 may benefit foraging and nesting habitat by reducing understory complexity in the short term and promoting the growth of residual trees in the long term. For species like pileated woodpeckers, these activities would make habitat more suitable in the long run because residual trees would eventually grow larger and be better suited for nest sites and ultimately provide future dead snags for foraging habitat. There would also be some improved foraging opportunities as a result of broadcast burning. In addition to the benefits of reducing the effects of severe wildfire to elk and deer habitat, fuels reduction and prescribed burning associated with alternative 1 will increase forage values from 40.9 to 59.0 percent of the project area (Final Environmental Impact Statement, pages 208-210).

Creating an Environment that is More Resilient to Disturbance as part of a Fire-Adapted Ecosystem

When compared to the no-action alternative and alternative 2, alternative 1 provides the best opportunity to promote the reintroduction of low and mixed severity fire across the landscape. Vegetation and fuels treatments will promote an abundance of fire tolerant tree species and structural classes, reduce canopy cover, reduce stand density, and promote resistance to disease and insect mortality. As shown on in table 30 page 75 of the Final Environmental Impact Statement, much of the project area (99 percent) is in fire regime condition class 2 and 3. Alternative 1 will help to move also move the North Fork area toward an fire regime condition class of 1 (less than a 33 percent departure from historic range of variation) (Final Environmental Impact Statement, table 3, page iii). The no-action alternative would not create an environment that is more resilient to disturbance as part of a fire-adapted ecosystem.

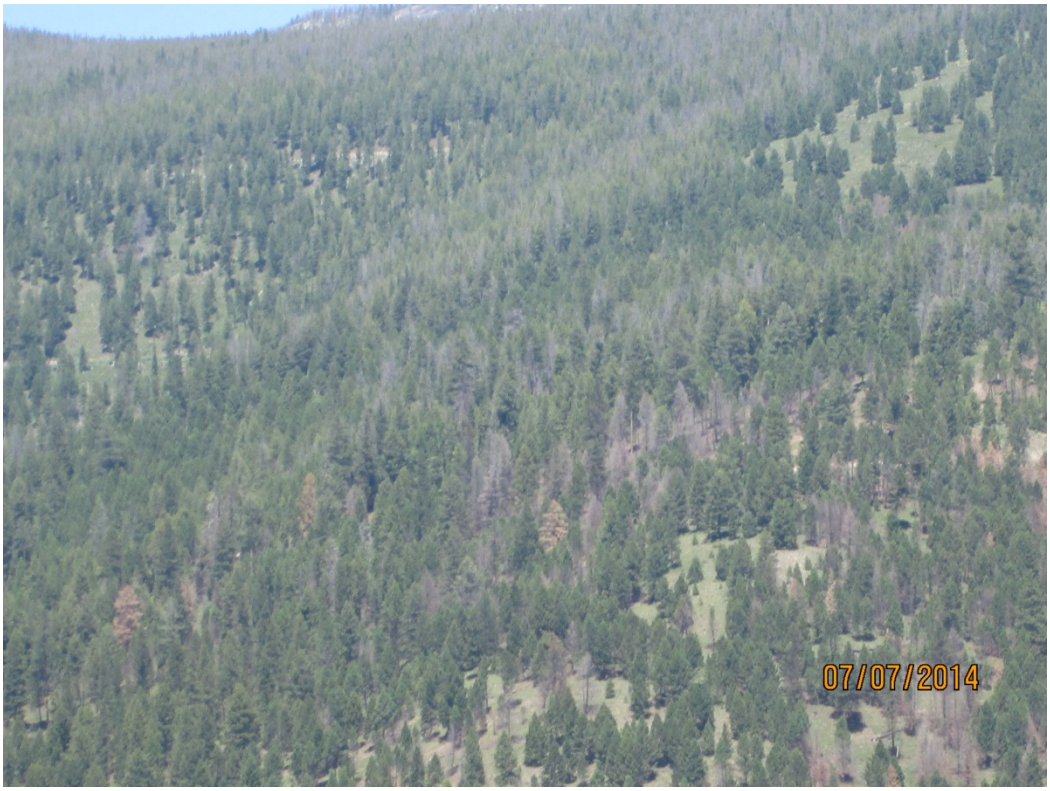

Figure 4. Typical pre-treatment timber stand within the project area

Figure 5. Desired post-treatment timber stand in the foreground

A Need to Complement Other Completed, Ongoing, and Planned Fuels and Vegetation Treatments Surrounding "At-Risk" Communities within the North Fork Drainage

Alternative 1 best addresses the need to compliment other completed, ongoing, and planned fuels and vegetation treatments surrounding "at-risk" communities within the North Fork drainage. It responds better to the needs of the local community, the Lemhi County Wildfire Prevention Plan, and the Lemhi County Forest Restoration Group. Recent, ongoing, and future activities within the North Fork area include thinning, pile and broadcast burning, and other county and public vegetation management activities (Final Environmental Impact Statement, appendix C). These federal, county, and private residence projects include Hughes Creek Environmental Assessment (pile and broadcast burning), Gibbonsville Environmental Assessment (pile and broadcast burning), private property pile burning, Lost Trail Sanitation Salvage (pile and broadcast burning), and Moose Creek Estates (thinning, burning and insect and disease treatment). Under the no-action alternative, there would not be a strategic approach to planning and implementing vegetation and fuels treatment projects which will complement past, ongoing, and planned fuels projects.

Site Specific Forest Plan Amendments to Meet the Desired Condition

Utilizing wildfire for multiple use objectives – Amendment 1

I am amending the Salmon Forest Plan Forestwide Direction for the project area excluding the Allan Mountain Research Natural Area. This site specific Forest Plan amendment adjusts and clarifies schedules to reach the goals and objectives of the Plan. Wildland fire will be allowed to play a natural role in the Upper North Fork Ecosystem Restoration Project Area. This amendment allows the line officer to manage wildland fire in the project area under specific prescription parameters (appendix B).

Modification of riparian habitat conservation areas – Amendment 3

In order to achieve the fuels reduction objective in this Healthy Forest Restoration Act project, I am modifying the Pacific Anadromous Fish Strategy riparian habitat conservation area buffer widths to allow mechanical treatment for fuels reduction above the road outside of the modified riparian habitat conservation areas. This modification only takes place where there is a road within the riparian habitat conservation area buffer between the unit boundary and the stream channel. Seventy-five acres in eleven fuels reduction units are affected by this modification (appendix B).

Issues

Issues were identified by the interdisciplinary team after reviewing and considering all scoping comments submitted during the public comment period. Comments were reviewed and a determination was made on whether they were significant. Significant issues, those that directly or indirectly are caused by implementing the proposed action included 1) Idaho roadless areas, and 2) wildlife habitat.

Idaho Roadless Areas

Alternative 1 involves cutting and removal of timber along with temporary road building in Idaho roadless areas adjacent to community protection zones and tree cutting/thinning outside the community protection zone. Under the Idaho Roadless Rule in areas designated as backcountry/restoration management classification, timber cutting, sale, and removal, and temporary road construction are permissible under certain conditions (36 CFR 294 Part C, 294.23 (b) (2) and 294.24 (c)). Alternative 1 conforms to the conditions outlined in the Idaho Roadless Rule and the proposed activities have been presented to and are supported by the Idaho Roadless Commission. Upon review of the Final Environmental Impact Statement, I am aware that while project activities in Idaho roadless areas could temporarily reduce the feeling of solitude during the time of implementation and undeveloped feel of areas during short to mid-term recovery periods, there would be no long term negative effects to the roadless characteristics (Final Environmental Impact Statement, page 295). Cumulatively, the current roadless characteristics and wilderness suitability of the Allan Mountain, Anderson Mountain, and West Big Hole Idaho Roadless Areas would be maintained and some criterion improved by alternative 1 because:

- Fuels reduction and temporary road construction activities proposed inside these Idaho roadless areas and contiguous unroaded areas would occur adjacent to private lands, exiting highways, and areas with Forest system roads and active management;
- Fuels reduction treatments in the Idaho roadless areas and unroaded areas would result in stand conditions with varying tree densities and would not be noticeable in the future (20 or more years);
- Restoration activities for mountain meadows, whitebark pine and aspen stands and decommissioning of unneeded roads would result in a landscape appearance and ecosystem processes more representative of their range of natural variability in the long term;
- Prescribed burning and management of wildland fire occurrences mimics and/or returns a natural disturbance process;
- Activities proposed outside and adjacent to these Idaho roadless areas would occur within areas that have been previously developed on National Forest System lands;

Although the no-action alternative is consistent with direction established for inventoried roadless areas in the Forest Plan and most of the Idaho Roadless Rule objectives of conserving roadless area characteristics, the result of a large wildland fire, although a natural component of roadless areas, would not meet desired conditions for the natural and human related resources and values associated with these

landscapes. The occurrence of a severe wildfire and its negative effects could result in degradation of wilderness attributes, roadless characteristics and loss of biological diversity. It could also have adverse impacts to vital community interests and infrastructure within and beyond Idaho roadless areas.

Wildlife Habitat

Alternative 1 includes treatments for hazardous fuels reduction and forest restoration that may in the short term impact the amount, quality, and distribution of wildlife habitat within the Upper North Fork Project Area. Current conditions within the Upper North Fork Project Area are such that there is an increased risk to some species of wildlife and their habitats from severe wildfire. A severe wildfire could have different implications for wildlife, depending upon the species and how it uses the affected area.

After reviewing the Final Environmental Impact Statement, I understand the importance and priority of treating hazardous fuels within the project area and that implementation of alternative 1 may impact the amount, quality, and distribution of wildlife habitat. I am also aware that implementation of alternative 1 may effect, but is not likely to adversely affect Canada lynx and not likely to jeopardize the continued existence of wolverine or adversely modify proposed critical habitat. For Forest Service sensitive species including gray wolf, Townsend's western big eared bat, fisher, boreal owl, flammulated owl, three toed woodpecker, northern goshawk, Columbia spotted frog, I am aware that implementation of alternative 1 may affect individuals, but is not likely to result in a trend toward federal listing or a loss of viability in the planning area for these species. For pileated woodpecker and Columbia frog (management indicator species), I understand that implementation of alternative 1 will not affect the viability of these species at either the project scale or at the Forest level scale.

After considering the wildlife analysis in the Final Environmental Impact Statement I am convinced that there is no longer a need for a Forest Plan Amendment to address the existing and expected conditions for big game winter range in Management Area 4A (MA4) (Final Environmental Impact Statement, pages 204-213). Management Area 4 is designated for big game winter range, namely for deer and elk, and there are 3,978 acres of this management area within the project area boundary which is part of a larger winter range area of about 11,361 acres. Of the MA4 ownership within the project area, 3,276 acres are Salmon-Challis National Forest; the remaining MA4 ownership is private. Under alternative 1, about 1,087 acres of National Forest in MA4 would be treated using non-fire methods including commercial thinning, shaded fuel breaks, helicopter, skyline, and tractor removal. Of this area (1,087 acres), 491 acres are considered suitable cover habitat (70 percent or higher canopy cover). It was determined that implementation of alternative 1, including all mechanical treatments to thin the dense forested stands and reduce density to serve as fuel breaks will reduce the total suitable cover acres on National Forest System lands for the short term to 26.4 percent which is above the Forest Plan Guideline of 25 percent (Final Environmental Impact Statement, page 205). Based on this analysis, Forest Plan Amendment 2 is not necessary for this project.

After reviewing the Final Environmental Impact Statement, I am also aware that implementation of alternative 1 will change cover to forage values in the project area (Final Environmental Impact Statement, pages 208-213). Current cover to forage values are 51.5 and 40.9 percent, respectively. Standards long used in game management are 40 percent cover and 60 percent forage (Thomas et al. 1979). Thus, existing forage does not meet this measure. As a result of implementing alternative 1, the resulting cover to forage values are estimated to be 33.5 and 59 percent, respectively. Although a better balance, both values would be below the desired level of 40 and 60 percent.

I am aware that implementation of alternative 1 will not negatively impact big game security habitat because this project does not change open motorized road and trail routes (Final Environmental Impact Statement, pages 205-208). Elk security is calculated by considering 250 acre coniferous patches at least

one-half mile from an open road (Hillis et al. 1991). There are four such patches within the Upper North Fork Project Area comprising 13,898 acres (34 percent of the project area). As a result of implementing alternative 1, there would be no permanent decrease or increase in the distance of motorized access routes in the project area. Vegetation treatments that occur within existing security areas will reduce available cover, but some cover will remain, even in the shaded fuel breaks. As such, the amount of existing security habitat will remain unchanged. It is also very important to mention that the recent change in access designation for the Pierce Creek Trail #6121 (no longer open to motorcycle only use per the Forest's Supplemental Travel Management Decision) will increase available security habitat within the project area from prior to this decision on the Upper North Fork Project.

I am also aware that as a result of addressing the hazardous fuel issues through the use of silvicultural and prescribed fire treatments in close proximity to the private property in the Upper North Fork drainage that there will be a decrease in cover (i.e., hiding) habitat for big game (Final Environmental Impact Statement, pages 210-213). It is important to understand that actual effectiveness of security habitat includes other attributes, such as how much understory vegetation there is that would hide an animal (shrubs, saplings, etc.) and terrain variability. When topography is taken into consideration, there is very little reduction in the quality of security habitat in areas solely treated with fire. Given limited motorized access in the project area, steep terrain, the variable landscape, and the live vegetation that will still remain, the total impact to hiding or cover habitat is marginal. Additionally and in response to other comments regarding big game security cover along roads, it is important to understand and disclose that shaded fuel breaks will only be completed in specific areas and not along all roads (Final Environmental Impact Statement, figure 23 page 212). The shaded fuel break treatments along roads account for but only a few of the treatment areas. For most of the project area, remaining treatments will not be as intensive.

As mentioned previously, it is plausible that a large landscape scale stand replacing wildfire could occur in the Upper North Fork Project Area much like the 2012 Mustang Fire that burned 341,416 acres on the North Fork Ranger District and adjacent Bitterroot National Forest. The potential cumulative effects to wildlife habitat from a second large fire in the Upper North Fork watershed has the potential to negatively affect multiple upland wildlife species and their habitat. In conclusion, I believe the long term benefits to wildlife habitat from implementing activities associated with alternative 1 greatly outweigh the short term effects and will result in long term conditions that will promote and conserve wildlife habitat for the future.

Public Comments

I have reviewed and considered all public comments received by the Forest during the public comment period which began on March 21, 2014 and ended on May 19, 2014. The Forest received and responded to 29 comment letters and forms during this period (Final Environmental Impact Statement, appendix F). I appreciated the comments from local residents, Moose Creek Estates, Lemhi County Commissioners, Lemhi County Forest Restoration Group, Lemhi County Road and Bridge Department, Idaho Fish and Game, Idaho State Parks and Recreation, U.S. Environmental Protection Agency, U.S. Department of Interior, Sun Mountain Lumber, Snake River Water Keepers, Idaho Conservation League, Governor's Lewis and Clark Trail Committee, Sun Mountain Lumber, and EFM Inc. Public meetings also occurred during the comment period in Gibbonsville and Salmon, Idaho.

There were a variety of public comments received during the public comment period (Final Environmental Impact Statement, appendix F). A general summary of the most common public comment topics included opposition to road closures and decommissioning, economic viability of the project and helicopter logging, wildlife and wildlife habitat, construction of temporary roads, and support for alternative 1.

Many of the individual public comments I reviewed were from local residents who opposed closing roads, especially a section of the Hammerean Loop Road (#449) near Gibbonsville (Final Environmental Impact Statement, appendix F). I also understand that there were similar concerns expressed by the public during public meetings in Salmon and Gibbonsville. The proposal to close a section of the Hammerean Loop Road was part of alternative 2 and will not be implemented under alternative 1. The Hammerean Loop Road will remain a designated road for the enjoyment of visitors and recreationalists. Two culverts will be replaced to improve watershed and stream function and fish passage. The chronic slide area will be evaluated to determine if there is a cost effective treatment for this section of road as funding becomes available.

I also reviewed and considered several comments concerning the economics of this project and the viability of helicopter logging. I feel it is important to consider economic viability and the potential benefits of this project to local residents, communities, and businesses. I believe that alternative 1 has the greatest potential to provide economic benefits to surrounding communities and residents. I also feel it is important to consider the economic viability of helicopter logging. Helicopter logging is very expensive and there are no local companies remaining who do this work. The value of timber must be high enough to justify costs and depending on timber market conditions the timber in this project area may or may not justify these kinds of operations. Given that alternative 2 has nearly twice as many helicopter logging acres proposed as alternative 2 this was an important consideration in my decision to implement alternative 1.

The cost difference between the commercial logging components of each alternative are shown in the tables below. Alternative 1 proposes nearly half the number of helicopter logging acres as alternative 2, making it much more economically feasible. The total cost of alternative 2 is approximately 2 million dollars more than alternative 1 and treats almost 100 fewer acres than alternative 1. The figures used for estimated logging costs are based upon recent stewardship contract prices in this area. Stewardship contracting is one of our most expensive but effective treatment options. It is the only option available to us in current timber markets for treatment of helicopter logging units. Other less expensive contracts will likely be used for skyline and tractor logging. There are some costs associated with the construction of new temporary roads for treatment but they do not result in a significant cost difference compared to the difference in project cost from helicopter logging.

Table 1. Alternative 1 commercial thinning

Treatment	Acres	Cost/acre	Total cost	Timing
Commercial tractor logging	2364	$300	$709,200	First 6 years
Commercial skyline logging	1032	$800	$825,600	First 6 years
Commercial helicopter logging	1139	$3000	$3,417,000	First 6 years
Total	4535		$4,951,800	

Table 2. Alternative 2 commercial thinning

Treatment	Acres	Cost/acre	Total cost	Timing
Commercial tractor logging	1899	$300	$569,700	First 6 years
Commercial skyline logging	596	$800	$476,800	First 6 years
Commercial helicopter logging	1949	$3000	$5,847,000	First 6 years
Total	4444		$6,893,500	

I have also reviewed several comments regarding wildlife and wildlife habitat from the public and partnering agencies and governments (Final Environmental Impact Statement, appendix F). Comments were received from Idaho Fish and Game, Idaho Conservation League, Lemhi Forest Restoration Group, Snake River Waterkeeper, and local residents. Several commenters responded similarly acknowledging that they had participated in the Lemhi County Collaborative process. The North Fork Ranger District met with Idaho Fish and Game and the Lemhi County Forest Restoration Group to update them on the progress of the decision and Final Environmental Impact Statement and to discuss their comments. Both Idaho Fish and Game and the Lemhi County Forest Restoration Group expressed interest in becoming involved with future project implementation planning. Idaho Fish and Game also expressed interest and were invited to provide input on the timing and seasonality of treatments which will be considered during implementation planning.

A summary of the general wildlife comments included a concern regarding the primary objective of the project being hazardous fuels reduction, adequate references to design criteria, big game habitat, security, and vulnerability, buffers along roads, staging treatments over time, flight considerations with wildlife, forest carnivore linkage zones, old growth treatments, incorporating new and updated information, cumulative effects of recent wildfires, aspen and whitebark pine treatments, concern with amended riparian habitat conservation area buffers, and monitoring (Final Environmental Impact Statement, appendix F). Other comments included a concern about the proposed Forest Plan Amendment for big game winter range in Management Area 4A, potential impacts to lynx habitat, and a need for additional management indicator species analysis (Final Environmental Impact Statement, appendix F). Many of these comments, recommendations, and new and updated information were very useful and were incorporated into the analysis where appropriate and reasonable.

In addition to what has already been discussed in previous sections, I would like to address a few of the major comments regarding wildlife and wildlife habitat. First, I want to reemphasize that I do recognize the importance of big game habitat, security, and vulnerability. It is also important that the public and our partners understand that without adequate fuels reduction treatments in the Upper North Fork Project Area, we risk the future loss of these habitats to a catastrophic wildfire. I am convinced that the long-term benefits resulting from the short term changes to wildlife habitat, cover, forage, and security as a result of implementing alternative 1 far outweigh the potential loss of these habitats and values from a future wildfire. I also want to assure our partners and the public that impacts to threatened, endangered, proposed, sensitive, and management indicator species were analyzed for this project. While there may be some measureable short-term impacts to habitat for some of these species, the treatments from alternative 1 will generally reduce the amount of habitat that would be lost in a severe wildfire.

The North Fork Ranger District also received comments regarding the need to evaluate the proposed fuels treatment projects with respect to impacts from past wildfires, including the 2012 Mustang Fire (Final Environmental Impact Statement, appendix F). The cumulative effects environmental baselines (existing condition) for wildlife took into account all activities and naturally occurring events such as wildfires (Final Environmental Impact Statement, pages 167-168). Cumulative effects were analyzed at a scale that was appropriate and different for each species. Because the project area is so large, the boundary itself was often suitable for a cumulative effects analysis for most species, except for wide ranging species like lynx where the analysis included adjacent lynx analysis units. Aerial imagery was used to assess the effects of past wildfires in and near the project area. The project area includes portions of large wildfires since 2000. These fires included the Sula and Twin Fires in 2000 and the Frog Pond Fire in 2003 which burned in the north and northwest portions of the project area boundary. The Twin Fire burned with mixed severity and is now well revegetated. The Sula and Frog Pond Fires burned with varying intensity and there is still evidence of overstory mortality. In 2012, the Mustang Complex burned into a small portion of the western Upper North Fork Project Area. This large fire burned in a mosaic fashion with mixed

severity especially on the east perimeter leaving some patches of unburned dense forest. In other high elevation timbered areas, fire severity and tree mortality was greater. In general, areas where there were previous forest thinning activities or where stands were naturally less dense; the burn severity was moderate to low. Riparian areas and springs are clearly visible now and are recovering quickly.

The North Fork Ranger District also received comments on the importance of maintaining linkage areas and habitat for lynx, wolverine, fisher, grizzly bear, gray wolf and other forest carnivores especially in the Lost Trail and Chief Joseph Pass areas (Final Environmental Impact Statement, appendix F). The Forest Service recognizes the importance of forest carnivore linkage areas, connectivity, and habitat. These areas were reviewed extensively by the District fire and fuels staff and wildlife biologist. In response to initial concerns regarding linkage areas and connectivity, the original proposed action, which included shaded fuel breaks east of Highway 93, was revised to only include commercial thinning in these areas. In the Chief Joseph vicinity, the units were identified as areas critical for hazardous fuels reduction for many reasons including the vicinity to a major highway and the fact that these units would be the only feasible line of defense for fire fighters should a fire get established between Highway 93 and the Anderson Mountain Road. In the Lost Trail Pass vicinity, the units in question were identified as areas critical for hazardous fuels treatment to help protect the Lost Trail Ski Area. The north-south ridge line that runs through the center of unit 16 would be the first line of defense for fire fighters should a fire get established west of this ridge. Overall, the analysis of all treatment units projected that existing canopy cover of 50 to 80 percent would be reduced to 40 percent or less following thinning and under burning (Final Environmental Impact Statement, appendix F). In consultation with the U.S. Fish and Wildlife Service, it was determined that as a result of implementing the proposed activities, there would be adequate remaining habitat in the vicinity of the mountain pass to provide an east-west linkage corridor for lynx, wolverine, and other forest carnivores (Final Environmental Impact Statement, appendix F).

I also reviewed public comments regarding the Site Specific Forest Plan Amendment to modify the Pacific Anadromous Fish Strategy riparian habitat conservation area buffer widths to allow for mechanical treatments (commercial thinning) above the road outside of the modified riparian habitat conservation area (Final Environmental Impact Statement, appendix F). This modification will only take place where there is a road within the riparian habitat conservation area buffer between the unit boundary and the stream channel at 11 sites. Based upon my review of the analysis, I am comfortable moving forward with this site specific Forest Plan amendment for the project. It was determined that the proposed mechanical treatments within the 11 units met the Pacific Anadromous Fish Strategy standards and guidelines, maintained Pacific Anadromous Fish Strategy resource management objectives and did not change the existing environmental baseline conditions; thus, adverse impacts to water quality were not expected (Final Environmental Impact Statement, pages 149-150) . Current and ongoing water quality and monitoring efforts are disclosed in the Final Environmental Impact Statement. The Forest will work with the National Marine Fisheries Service and the U.S. Fish and Wildlife to implement additional monitoring, if required. I also reviewed comments from individuals and groups regarding construction of temporary roads including temporary roads in Idaho roadless areas (Final Environmental Impact Statement, appendix F). Two commenters indicated that they opposed the construction of temporary roads in Idaho roadless areas. A few commenters stated that they supported alternative 2 because it did not include the construction of temporary roads, including those in Idaho roadless areas. Three commenters indicated that they appreciated that the Forest Service developed an alternative examining the environmental effects with no temporary road construction within Idaho roadless areas as well as an alternative with 2.1 miles of temporary road construction within Idaho roadless areas. These commenters referred to the Idaho Roadless Rule where temporary roads can be authorized if the deciding official believes there is a reasonable way to accomplish the community protection objectives without the construction of temporary roads. These commenters made a reference to “reasonableness” of helicopter logging stating that if it is “reasonable” to incorporate helicopter logging to treat units then the

responsible official should not authorize the temporary roads. If it is "unreasonable" to incorporate helicopter logging, then the temporary roads can be authorized. In making my decision to implement alternative 1, I considered the "reasonableness" of helicopter logging. Due to the lack of available helicopter operators, the cost of these operations, today's market conditions, and the ability to best meet the purpose and need of this project, I decided to implement alternative 1.

I also consider it reasonable to implement the proposed activities associated with alternative 1 in Idaho roadless areas. In addition to helping to reduce the risk of a large catastrophic wildfire both within and outside established roadless areas, the proposed activities are consistent with direction outlined in the Forest Plan and are important for helping to protect private lands and structures within established community wildfire protection zones. As a result of gaining access through private lands for fuels reduction activities, temporary road construction and decommissioning activities and any potential negative effects from these activities will be minimized. I also consider it reasonable to implement activities in roadless areas adjacent to private lands, dwellings, and roads because these areas have already been impacted and do not provide quality roadless solitude and character when compared to interior areas. Lastly, it is important to reemphasize that the proposed treatments associated with alternative 1 will help to promote the quality and character of roadless areas because the proposed thinning and prescribed burning activities will promote more vigorous and resilient forests. These areas will be better adapted to fire, more resistant to insects and disease, have better wildlife habitat, and reduce the potential negative effects of a catastrophic wildfire that could negatively affect roadless characteristics and solitude.

I appreciated the comments from many individuals who supported alternative 1 and/or recognized the need for fuels reduction treatments. Local residents fully supported the project because of the benefits from fuels reduction in helping to protect homes, private property, and improve public safety. Lemhi County fully recognized the need for fuels reduction across the County's landscape based on current fuel loading, the number of dead and diseased trees, and the imminent threat to communities, watersheds, and ecosystems from wildfire.

Other Alternatives Considered

In addition to the selected alternative, I considered 2 other alternatives, which are discussed below. Action alternative 2 was the environmentally preferred alternative. A more detailed comparison of these alternatives can be found in the Final Environmental Impact Statement on pages 11-18.

No-action Alternative

Under the no-action alternative, current management plans would continue to guide management of the project area. The Healthy Forest Restoration Act (HFRA) states that while agencies are not expected to fully develop a no-action alternative, "they should evaluate the effects of failing to implement the project. This evaluation should allow an assessment of the short and long-term effects of failing to implement the project in the event the court is asked to consider requests for an injunction" (HFRA Field Guide 2004).

Changes in forest structure due to fire suppression in the project area over the past few decades have significantly increased the potential for uncharacteristic fire behavior. At a landscape scale, stand replacing wildland fire during summer drought and extreme weather conditions with lethal fire severity to 50 percent of forested and riparian ecosystems is a plausible event as a consequence of not implementing hazardous fuels reduction activities. In 2012 the Mustang Fire burned through 341,416 acres on the North Fork District of the Salmon-Challis National Forest and the adjacent Bitterroot National Forest threatening many homes in the wildland-urban interface. This is the context for which "No Action with Wildfire" was evaluated for the Upper North Fork HFRA Ecosystem Restoration Project.

Alternative 2 – No New Temporary Road Construction

Alternative 2 was designed to address concerns raised during the public scoping period. Alternative 2 differs from the proposed action in that no new temporary road construction would occur, harvest activities include commercially thinning from below to reduce the understory on approximately 4,444 acres of the project area, and strategically located shaded fuel break treatments would occur on approximately 1,050 acres. There would be 1,899 acres of tractor logging, 596 acres of skyline logging and 1,949 acres of helicopter logging. Depending upon timber market conditions the economic viability of helicopter logging can vary over time. However, not treating these acres would not meet the purpose and need of the project. Existing road prisms may still be used as temporary roads to implement proposed treatments.

All proposed harvest units which are not accessible without the new temporary road construction would either be dropped from treatment, have modified unit boundaries, or harvest methods changed to be suitable with the available road system. In this alternative, the Hammerean Loop Road would no longer be a loop. The road would be closed to all motorized use at the existing rock slide and turnarounds established. Additionally, National Forest System Road 60078A (3.1 miles) would be seasonally closed from October 1st through May 21st to enhance wildlife habitat and security from September 30th through May 21st.

In this alternative, approximately 12 miles of temporary road would be used for access to project areas. All 12 miles of temporary roads to be used are existing unclassified roads where no new construction is needed. Approximately 61.5 miles of non-system user created roads and 6.4 miles of closed system roads would be decommissioned. These roads proposed for decommissioning are identified in the Salmon-Challis Travel Plan.

Public Involvement

The Healthy Forest Restoration Act has distinct requirements for collaboration, public involvement, and alternative development. In part, the Healthy Forest Restoration Act directs:

- Collaboration (HFRA, Section 104(f)) – The Forest Service shall facilitate collaboration when preparing Healthy Forest Restoration Act projects.
- Public Meetings (HFRA, Section 104(e)) – The Forest Service must conduct a public meeting when preparing a Healthy Forest Restoration Act project.
- Alternative Development (HFRA, Section 104(c) and (d)) – The requirements for a range of alternatives analyzed in an environmental impact statement developed under Healthy Forest Restoration Act vary based on land description, including whether the project location is within or outside of wildland-urban interface. The Upper North Fork project is within a wildland-urban interface, and as such, the required alternatives are:
    - The proposed action,
    - The no-action alternative, and
    - Not more than one additional action alternative if one is proposed during scoping or the collaborative process. If more than one additional alternative is proposed, the Forest Service must select one and provide a written record describing the reason for its selection.

The Salmon-Challis National Forest consulted with individuals and groups for suggestions and input on restoration needs and potential activities for this project area to improve the health of the ecosystem and reach the desired future condition of the Salmon-Challis Land Management Plan. The Lemhi County

Forest Restoration Group has been a key partner in developing this proposed action. The Collaborative developed a recommendation memo in 2010 which is the basis of the Upper North Fork Proposed Action. The recommendation memo reflects the consensus that was reached following over two years of field trips and meetings (the memo is located in the project record). A follow-up consensus memo was written in 2012 to reaffirm the Collaborative group's support.

The Notice of Intent was published in the Federal Register on August 3, 2011. The Notice of Intent asked for public comment on the proposal by September 2, 2011. Public meetings were held on this proposed project at the Gibbonsville Improvement Association Building and at the Sacajawea Center in Salmon both in August of 2011. Additional public meetings occurred on April 9th and 10th, 2014 during the draft environmental impact statement public comment period. Using the comments from the public, other agencies, and Tribes (see Issues section), a list of issues to address was developed.

Findings Required by Other Laws and Regulations

Numerous laws, regulations, and agency directives require that my decision be consistent with their provisions. I have determined that my decision is consistent with all laws, regulations, and agency policy. The following summarizes findings required by major environmental laws.

Consistency with the Salmon Land and Resource Management Plan

The decision to implement Alternative 1 is consistent with the Salmon National Forest Land and Resource Management Plan, its goals, objectives, standards, and guidelines as outlined in the Final Environmental Impact Statement on page 7. The project objectives parallel direction for Management Areas 1A, 2A, 3A, 4A, 5A and 6A which is prescribed for the project area. This consistency also includes the Forest Travel Plan, the Pacific Anadromous Fish Strategy Amendment (Interim Strategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon, Washington and Idaho and portions of California), old growth, biological evaluations and surveys, and detrimental soil disturbance. See additional information below regarding the Pacific Anadromous Fish Strategy.

I have identified the following 2 site specific Forest Plan amendments in order to meet our project objectives. These amendments will change current requirements and prescriptions which limit the treatments and activities we have identified as necessary to attain the desired future condition in the project area. The third site specific Forest Plan amendment that was included in the draft environmental impact statement was determined through further analysis to not be necessary and therefore is not included in this decision.

Proposed Site Specific Amendment #1- Wildland fire management would more closely align with Federal Wildland Fire policy by allowing unplanned ignitions to meet project objectives.

Proposed Site Specific Amendment #2- The Pacific Anadromous Fish Strategy (PACFISH) riparian habitat conservation area buffer widths would be modified to the road allowing mechanical treatment (commercial thinning for fuels reduction) above the road outside of the modified riparian habitat.

Designated Old Growth Consent Decree

An evaluation has been made to insure terms of the Salmon Moose Settlement Agreement (Case 4:07-cv-00452-EJL) have been met. Upper North Fork HFRA Ecosystem Restoration Project consistency with the Salmon-Moose Settlement Agreement and related Forest Plan general direction, standards, and guidelines is also described on page 60 in chapter 3 of the Final Environmental Impact Statement in the silviculture section.

The National Environmental Policy Act (NEPA) of 1969 (P.L. 91-190)

The purposes of this Act are "To declare a national policy which will encourage productive and enjoyable harmony between man and his environment, to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality" (42 U.S.C. Sec. 4321). This decision is consistent with the Act and the procedures outline in the CEQ regulations.

The National Forest Management Act (NFMA) of 1976 (P.L. 4-588)

This Act guides development and revision of National Forest Land Management Plans and contains regulations that prescribe how land and resource management planning is to be conducted on National Forest System lands to protect National Forest resources. My decision complies with NFMA. See the description below regarding compliance with NFMA.

The NFMA and accompanying regulations require several evaluations and specific findings be documented at the project level:

Forest Management Indicator Species: Consistent with regulations at 36 CFR 219.19, Alternative 1 was evaluated for potential impacts (direct, indirect and cumulative) to habitats for pileated woodpecker, Columbia spotted frog, and bull trout, management indicator species known to occur in the project area. This evaluation, as documented in the environmental consequences section of the Final Environmental Impact Statement (pages 198-201), determined that viable populations of management indicator species will be maintained in the project area (page 49-51 of the wildlife specialist report; page 36 of the fisheries specialist report). This determination is consistent with forest-wide trends for populations and habitat conditions for these management indicator species.

Other NFMA Requirements

I have determined the selected alternative is consistent with the following provisions of the National Forest Management Act:

1. **Suitability for Timber Production: No timber harvest, other than salvage sales or sales to protect other multiple-use values, shall occur on lands not suited for timber production (16 USC 1604(k)).**

   All activities involving timber harvest will occur on lands suitable for timber production as required under 16 USC 1604(k).

2. **Timber Harvest on National Forest Lands (16 USC 1604(g)(3)(E)): A Responsible Official may authorize site-specific projects and activities to harvest timber on National Forest System lands only where:**

   a. **Soil, slope, or other watershed conditions will not be irreversibly damaged (16 USC 1604(g)(3)(E)(i)).** The environmental analysis does not indicate that irreversible damages may occur to soils, slopes, or other watershed conditions. No permanent (e.g., irreversible) impairment of site productivity is expected as a result of the proposed silvicultural activities, and the project's design features and management requirements ensure conservation of soil, slope, and other watershed conditions.

   b. **There is assurance that the lands can be adequately restocked within five years after final regeneration harvest (16 USC 1604(g)(3)(E)(ii)).**

All areas with regeneration harvests included under the action alternative are productive sites that can be adequately restocked within five years via either natural regeneration or reforestation planting.

c. Protection is provided for streams, streambanks, shorelines, lakes, wetlands, and other bodies of water from detrimental changes in water temperatures, blockages of water courses, and deposits of sediment, where harvests are likely to seriously and adversely affect water conditions or fish habitat (16 USC 1604(g)(3)(E)(iii)).

All harvests included under the action alternative were analyzed for possible effects to water conditions and fish habitat in the environmental analysis, and no likely serious or adverse effects were found. Protections required by this item of the NFMA are either already in place (activity design features, location, and type), or no additional protections are required.

d. The harvesting system to be used is not selected primarily because it will give the greatest dollar return or the greatest unit output of timber (16 USC 1604(g)(3)(E)(iv)).

During the project environmental analysis, the selected harvesting system was compared to alternative harvest systems. The ground-based systems were chosen not primarily because they might give the greatest dollar return or greatest unit output of timber, but because the ground-based systems were judged to be most suitable (in terms of operational feasibility) for meeting the silvicultural objectives of the project. Many of the anticipated prescriptions (particularly the thin-from-below thinning treatments) are operationally difficult—if not sometimes impossible—to achieve using helicopter yarding methods.

3. Clearcutting and Even-aged Management (16 USC 1604(g)(3)(F)): Insure that clearcutting, seed tree cutting, shelterwood cutting, and other cuts designed to regenerate an even-aged stand of timber will be used as a cutting method on National Forest System lands only where:

a. For clearcutting, it is determined to be the optimum method, and for other such cuts it is determined to be appropriate, to meet the objectives and requirements of the relevant land management plan (16 USC 1604(g)(3)(F)(i)).

b. The interdisciplinary review as determined by the Secretary has been completed and the potential environmental, biological, esthetic, engineering, and economic impacts on each advertised sale area have been assessed, as well as the consistency of the sale with the multiple use of the general area (16 USC 1604(g)(3)(F)(ii)).

c. Cut blocks, patches, or strips are shaped and blended to the extent practicable with the natural terrain (16 USC 1604(g)(3)(F)(iii)).

d. Cuts are carried out according to the maximum size limit requirements for areas to be cut during one harvest operation, provided, that such limits shall not apply to the size of areas harvested as a result of natural catastrophic conditions such as fire, insect and disease attack, or windstorm (FSM R1 supplement 2400-2001-2 2471.1, 16 USC 1604(g)(3)(F)(iv)).

e. Such cuts are carried out in a manner consistent with the protection of soil, watershed, fish, wildlife, recreation, and esthetic resources, and the regeneration of the timber resource (16 USC 1604(g)(3)(F)(v)).

None of the activities included in this project action alternative are designed to regenerate an even-aged stand of timber, so this item is not applicable to the Upper North Fork project.

4. **Construction of temporary roadways in connection with timber contracts, and other permits or leases: Unless the necessity for a permanent road is set forth in the forest development road system plan, any road constructed on land of the National Forest System in connection with a timber contract or other permit or lease shall be designed with the goal of reestablishing vegetative cover on the roadway and areas where the vegetative cover has been disturbed by the construction of the road, within ten years after the termination of the contract, permit, or lease either through artificial or natural means. Such action shall be taken unless it is later determined that the road is needed for use as a part of the National Forest Transportation System (16 USC 1608(b)).**

   The planned construction of temporary roads, decommissioning of other closed roads planned under the action alternative, and project design features intended to close temporary roads (described in chapter 2 of the Final Environmental Impact Statement) all ensure project consistency with this item. All planned construction of temporary roads shall be designed with the goal of reestablishing vegetative cover on the roadway and areas where the vegetative cover has been disturbed by the construction of the road, within ten years after the termination of the contract, permit, or lease either through artificial or natural means.

The Endangered Species Act (ESA) of 1973, as amended

The purposes of this Act are to provide for the conservation of threatened and endangered species and their habitats. The Forest is required by the Endangered Species Act to ensure that any actions it approves will not jeopardize the continued existence of threatened and endangered species or result in the destruction or adverse modification of critical habitat.

The Forest Service prepared biological assessments to comply with the Endangered Species Act. A biological assessment analyzes potential effects on threatened and endangered species that may be present in the project area. In consultation with the U.S. Forest Service, the U.S. Fish and Wildlife Service and National Marine Fisheries Service review the biological assessments and evaluate the effects analysis and determination for each species.

A Fisheries Biological Assessment for the Upper North Fork HFRA Ecosystem Restoration Project was completed on July 16, 2014 and determined Snake River sockeye salmon and Snake River sockeye salmon designated critical habitat do not occur with the project area; May Effect, Not Likely to Adversely Affect for Snake River spring/summer chinook salmon and Snake River spring/summer chinook salmon designated critical habitat and chinook salmon Essential Fish Habitat; May Effect, Not Likely to Adversely Affect for Snake River Basin steelhead and Snake River Basin steelhead designated critical habitat; May Effect, Not Likely to Adversely Affect for Columbia River bull trout and for Columbia River bull trout designated critical habitat. May Impact Individuals or Habitat, but will Not Contribute to a Trend Towards Listing or Cause a Loss of Viability to the Population or Species determination was made for Westslope cutthroat trout, a sensitive species (also page 27-28 of the biological assessment).

A terrestrial wildlife biological assessment for the Upper North Fork HFRA Ecosystem Restoration Project was completed on May 29, 2014 and determined May Affect, Not Likely to Adversely Affect for Canada Lynx and Will Not Affect for Canada Lynx critical habitat; May Affect Individuals, but Not Likely to Jeopardize the Continued Existence of North American Wolverine.

Informal agreement in these determinations for Endangered Species Act listed and candidate species has been received from the United States Department of Commerce, National Oceanographic and Atmospheric Administration, National Marine Fisheries Service and the U.S. Fish and Wildlife Service. Letters requesting written concurrence with these determinations have been submitted to National Marine Fisheries Service and U.S. Fish and Wildlife Service and responses are currently pending.

The Migratory Bird Treaty Act of 1918

The purpose of this Act is to establish an international framework for the protection and conservation of migratory birds. The Migratory Bird Treaty Act implements various treaties and conventions between the U.S. and Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Under the Act, taking, killing, or possessing migratory birds, including nests and eggs, is unlawful. A list of neotropical migratory birds protected by the Migratory Bird Treaty Act is provided in 50 CFR 10.13. Additional information on the Migratory Bird Treaty Act can be found in the wildlife specialist report (pages 51-53), and wildlife resources section, chapter 3 of the Final Environmental Impact Statement. My decision complies with Migratory Bird Treaty Act as indicated on page 202 of the Final Environmental Impact Statement.

Executive Order 13186 (Migratory Bird Treaty Act)

In January 2001, the President signed an executive order outlining responsibilities of federal agencies to protect migratory birds under the Migratory Bird Treaty Act. As a complementary measure to the Executive Order, the Forest Service and the U.S. Fish and Wildlife Service entered into a Memorandum of Understanding the purpose of which is to strengthen migratory bird conservation through enhanced collaboration between the agencies, in coordination with state, tribal, and local governments. My decision is consistent with the Executive Order and the Migratory Bird Treaty Act.

The Federal Water Pollution Control Act of 1972 (P.L. 92-500) as amended in 1977 (P.L. 95-217) and 1987 (P.L. 100-4), also known as the Federal Clean Water Act

The primary objective of this Act is to restore and maintain the integrity of the nation's waters by: 1) Eliminating the discharge of pollutants into the nation's waters; and 2) Achieving water quality levels that are fishable and swimmable. This Act establishes a non-degradation policy for all federally proposed projects to be accomplished through planning, application, and monitoring of best management practices. Identification of best management practices is mandated by Section 319 of the Water Quality Act of 1987 (also referred to as the Clean Water Act), which states, "It is national policy that programs for the control of nonpoint sources of pollution be developed and implemented." My decision complies with the Clean Water Act as indicated on pages 112-123 of the Final Environmental Impact Statement.

Federal Noxious Weed Act of 1974

This Act provides for the control and management of non-indigenous weeds that injure or have the potential to injure the interests of agriculture and commerce, wildlife resources, or the public health. The Act requires that each federal agency develop a management program to control undesirable plants on federal lands under the agency's jurisdiction; establish and adequately fund the program; implement cooperative agreements with state agencies to coordinate management of undesirable plants on federal lands; and establish integrated management systems to control undesirable plants targeted under cooperative agreements. The alternatives analyzed in the Final Environmental Impact Statement comply with the Federal Noxious Weed Act. Under separate planning activities, the agency has developed a management program to control undesirable plants on the Salmon-Challis National Forest. My decision considered and analyzed the risk of spreading noxious weeds and complies with Salmon-Challis National Forest programs to control noxious weeds.

The Preservation of American Antiquities Act of 1906

This Act makes it illegal to "…appropriate, excavate, injure, or destroy any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned by the Government of the United States…" Cultural resource surveys would be completed for all proposed additions to the current designated travel system and any cultural resources identified would be protected as required through consultation with the

Idaho State Historic Preservation Office. Concurrence from the State Historic Preservation Office was obtained as indicated on pages 336-337 of the Final Environmental Impact Statement.

The National Historic Preservation Act of 1966, as amended

This Act requires federal agencies to consult with state and local groups before nonrenewable cultural resources, such as archaeological sites and historic structures are damaged or destroyed. Section 106 of this Act requires federal agencies to review the effects that project proposals may have on the cultural resources in the project area. It requires agencies to consider the effects of undertakings on properties eligible to or listed in the National Register of Historic Places by following the regulatory process specified in 36 CFR 800.

Actions permitted, approved, or initiated by the Forest Service and that may affect cultural resources must comply with provisions of the National Historic Preservation Act (NHPA) of 1966, as amended, and as implemented by federal guidelines 36 CFR 800. Section 106 of the National Historic Preservation Act requires a federal agency to take into account the effects of the agency's undertaking on properties listed on, or eligible for listing on, the National Register of Historic Places.

Before any federal undertaking begins, cultural resources eligible for listing on the National Historic Preservation Act must be identified and documented. Cultural resources recorded in the project area are evaluated in consultation with the State Historic Preservation Office or the Federal Advisory Council on Historic Preservation. Concurrence from State Historic Preservation Office was obtained as indicated on pages 336-337 of the Final Environmental Impact Statement.

The Archaeological Resources Protection Act (ARPA) of 1979

The Archaeological Resources Protection Act prohibits the excavation, removal, damage, or destruction of archaeological resources located on public lands, and specifies civil and criminal penalties for persons found guilty of violations under the act. Authorized excavation and removal of archaeological resources requires a permit issued by the federal agency. The Archaeological Resources Protection Act, as referenced in the Freedom of Information Act (FOIA) (5 U.S.C. 552[b]), protects the confidentiality of archaeological sites from public disclosure. Other provisions of the law promote communication and cooperation between federal agencies, Indian tribes, professional archaeologists, and private individuals for the protection of archaeological resources on public lands. The procedures for implementing the Archaeological Resources Protection Act are outlined in the U.S. Code of Federal Regulations (36 CFR Part 296).

Federal statutes covering theft and destruction of government property also prohibit the removal of, and damage or destruction of, archaeological resources on public lands (see 18 U.S.C. 641 and 18 U.S.C. 1361, respectively). Concurrence from the State Historic Preservation Office was obtained as indicated on pages 336-337 of the Final Environmental Impact Statement.

Executive Order 12898 and Consumers, Civil Rights, Minorities, and Women

EO 12898 directs each federal agency to make environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. An associated memorandum emphasizes the need to consider these types of effects during NEPA analysis. The Selected Alternative would not disproportionately adversely affect minority or low-income populations (including American Indian Tribal members).

The need to conduct an analysis of this potential impact is required by Forest Service Manual and Forest Service Handbook direction. The civil rights of individuals or groups, including minorities, people with disabilities, and women, are not differentially affected by the Selected Alternative

Executive Order 13443

The purpose of Executive Order 13443, signed in 2007, is to direct federal land management agencies to facilitate expansion and enhancement of hunting opportunities and the management of game species and their habitats. The E.O. directs agencies to evaluate the effect of agency actions on trends in hunting participation and, where appropriate to address declining trends, implement actions that expand and enhance hunting opportunities for the public; consider the economic and recreational values of hunting in agency actions, as appropriate; manage wildlife and wildlife habitats on public lands in a manner that expands and enhances hunting opportunities, including through the use of hunting in wildlife management planning; work collaboratively with State governments to manage and conserve game species and their habitats in a manner that respects private property rights and state management authority over wildlife resources; establish short and long term goals, in cooperation with state and tribal governments, and consistent with agency missions, to foster healthy and productive populations of game species and appropriate opportunities for the public to hunt those species; ensure that agency plans and actions consider programs and recommendations of comprehensive planning efforts such as state Wildlife Action Plans, the North American Waterfowl Management Plan, and other range-wide management plans for big game and upland game birds; seek the advice of state and tribal fish and wildlife agencies, and, as appropriate, consult with the Sporting Conservation Council and other organizations, with respect to the foregoing federal activities.

Implementation of alternative 1 will promote the conservation and management of wildlife habitat and game species both within and outside the Upper North Fork Project Area. Proposed fuels reduction activities will help to prevent a severe wildfire which could negatively affect populations and habitat of game species and potentially decreased future hunting opportunities. Implementation of the Upper North Fork Project will promote improved wildlife forage as a result of thinning and prescribed burning which will benefit big game species including deer, elk, sheep, and mountain goat. The Upper North Fork Project Area currently provides both accessible and remote hunting opportunities for local and out-of-state residents. Recognizing that participation in hunting nationally (number of hunters, days hunting, and hunting expenditures) has increased since 2001 (U.S. Fish and Wildlife Service 2011) is important to maintain and promote areas that provide a variety of hunting opportunities for the public. Additionally, this project will also restore important fish and wildlife habitat as a result of aquatic restoration projects, meadow restoration, and aspen and whitebark pine enhancement. The Salmon-Challis National Forest worked collaboratively with the Idaho Fish and Game to address concerns regarding big game habitat, security, cover, and forage. Information was provided by Idaho Fish and Game which was used to evaluate potential effects to wildlife habitat and was also invited to participate in future implementation planning for the Upper North Fork Project Area.

Idaho Roadless Rule

The U.S. Department of Agriculture adopted a state-specific, final rule establishing management direction for designated roadless areas in the State of Idaho, on October 16, 2008. The final rule designated 250 Idaho roadless areas and established five management themes that provide prohibitions with exceptions or conditioned permissions governing road construction, timber cutting, and discretionary mineral development. This final rule supersedes the 2001 Roadless Area Conservation Rule (2001 Roadless Rule) for National Forest System lands in the State of Idaho.

The Idaho Roadless Rule does not apply to Forest Plan Special Areas (36 CFR 294.28(f). Management direction in the Salmon National Forest Land and Resource Management Plan continues to guide activities within Management Area 1A- Lost Trail Pass Ski Area, and Management 6A - Allan Mountain Research Natural Area. Based on this any activities within the Forest Plan Special Areas are consistent with the Rule.

Under the Idaho Roadless Rule areas with a backcountry/restoration management classification, timber cutting, sale and removal, and temporary road construction are permissible under certain conditions. (36 CFR 294 Part C, §294.23(b)(2) and 294.24 (c)):

Community Protection Zone Activities

The Idaho Roadless Rule permits timber, cutting, sale or removal within the community protection zone if the in the responsible official's judgment the project generally retains large trees as appropriate for the forest type and is consistent with land management components (36 CFR 294.24(c)(1)(i). In addition the Rule permits temporary road construction or road reconstruction for CPZ activities pursuant to 294.24(c)(1)(i) if in the official's judgment the community protection objective cannot be reasonably accomplished without a temporary road. (36 CFR 294.23(b)(2). The requirement to retain one or more roadless area characteristics over the long term does not apply to either permission.

The fuel break, commercial thinning and precommercial thinning activities meet the timber cutting permissions because:

1. They are located within the community protection zone
2. They remove hazardous fuel conditions
3. They retain large trees as appropriate for the forest type
    - **a.** Prescriptions for commercial thinning are essentially identical for each harvest system (tractor, skyline, and helicopter). Fuel break and pre-commercial thinning target the understory component of forest stands.
    - **b.** Project alternatives include the following design features: Emphasis on large tree retention. Priority for leave trees would be largest diameter Ponderosa pine and largest diameter Douglas-fir, then largest diameter lodgepole pine, insect and disease free, largest crown, trees with tallest height, straightest stem. Favor Ponderosa pine over Douglas-fir where characteristics are similar, favor Douglas-fir over lodgepole pine where characteristics are similar and favor/enhance aspen wherever it occurs. There would be no harvest in designated old growth retention stands. Special measures to be taken in designated old growth retention stands include pretreatments such as ladder and tree-well fuel reduction for each unit as needed prior to prescribed burning.
4. The activities are consistent with the land management plan as they are designed to provide for a healthy forest cover over the long term. See above and also table 15 of the silviculture report, 2014 for the Upper North Fork HFRA Ecosystem Restoration Project.

Prescribed Fire and Wildland Fire Activities

The Idaho Roadless Rule for backcountry/restoration management classification areas also allows for activities away from roads in the form of prescribed fire or wildland fire use for fuels reduction to reduce wildland fire risk. In these instances any such projects would be designed to maintain or improve roadless characteristics over the long-term.

Meadow, Aspen and Whitebark Pine Restoration Activities

The Idaho Roadless Rule permits timber cutting, sale and removal in the backcountry/restoration management classification to maintain or restore the characteristics of ecosystem composition, structure and function (36 CFR 294.24(c)(iv). Meadow restoration, aspen and whitebark pine restoration activities meet this exception because they serve to maintain native species composition, ecological processes and forest structure at both stand and landscape scales. They also help support the desired fire regime and viable populations of native plant species in functional networks of habitat.

In addition, these activities meet the following conditions associated with this exception:

1. Maintain or improve one or more of the roadless characteristics over the long-term by:
    - **a.** supporting a diversity of plant and animal communities (aspen and whitebark pine);
    - **b.** habitat for threatened, endangered, proposed, candidate, and sensitive species (aspen, whitebark pine and meadows);
    - **c.** natural appearing landscapes with high scenic quality (meadows).
2. Maximize retention of large trees as appropriate for the forest type to the extent the trees promote fire resilient stands. See discussion above about community protection zones.
3. Is consistent with the land management components. See discussion above about community protection zones.

Executive Order 11988, Floodplain Management

My decision is consistent with EO 11988. It was determined that this decision will not impact floodplains in the Project area and, thereby, will not increase flood hazard. Soil, water, riparian, and aquatic resource standards and guidelines in the 1988 Forest Plan were specifically designed to ensure that management actions implementing the Forest Plan, such as this one, will avoid or minimize short- and long-term impacts to floodplain as required under this executive order. Chapter 3 of the Final Environmental Impact Statement discloses the anticipated effects to soil, water, riparian, and aquatic resources in the hydrology section. Determinations of consistency with Forest Plan standards and guidelines are specifically addressed in the Forest Plan Consistency Tables and the hydrology and fisheries technical report found in the project record. Designs features, as identified in appendix A of the Final Environmental Impact Statement, and included in this decision, were specifically developed, in part, to avoid or minimize effects to floodplains as required under this Executive Order.

Executive Order 11990, Protection of Wetlands

My decision is consistent with EO 11990. It was determined that this decision will not impact wetlands in the Project area (refer to Final Environmental Impact Statement chapter 3, soils, hydrology and fisheries sections and hydrology/soils and fisheries technical reports available in the project record). Soil and water resource goals, standards and guidelines in the 1988 Forest Plan were specifically designed to maintain watershed condition and water quality such that downstream beneficial uses are protected and compliance with State standards is achieved. The Forest Plan also outlines that management and resource development within riparian zones be conducted in a manner compatible with protection of water quality and fish habitat.

Design features identified in appendix A of this decision were specifically developed, in part, to avoid or minimize effects to wetlands as required under this Executive Order.

Determinations of consistency with Forest Plan standards and guidelines are specifically addressed in the hydrology/soils and fisheries technical reports found in the project record.

Idaho Stream Alteration Act

As identified in Appendix A – Integrated Design Features and Monitoring Requirements; soil, water and fisheries; aquatic habitat improvements and culvert replacements, necessary stream alternation permits will be obtained from the Idaho Department of Water Resources prior to undertaking activities that may impact perennial streams. Thus, implementation of my decision will adhere to the requirements of the Idaho Stream Alterations Act, 404 Permit processes of the U.S. Corps of Engineers, and Idaho Department of Environmental Quality Stream Alteration rules (IDAPA 37.03.07 Rule 059) (Final Environmental Impact Statement chapter 3, soils, hydrology and fisheries sections and hydrology/soils and fisheries technical reports available in the project record).

Idaho Forest Practices Act

Rules pertaining to the Idaho Forest Practices Act will be implemented under my decision. In addition, logging operations and road maintenance activities will be administered on the ground by Forest Service personnel to ensure compliance with any contract requirements associated with requirements under the Idaho Forest Practices Act.

Salmon-Challis National Forest Responsibilities to Federally Recognized Tribes

American Indian Tribes are afforded special rights under various federal statutes including: the National Historic Preservation Act of 1966 (as amended); the National Forest Management Act of 1976 (P.L. 4588); the Archaeological Resources Protection Act of 1979, and implementing regulations 43 CFR Part 7; the Native American Graves Protection and Repatriation Act of 1990, and implementing regulations 43 CFR Part 10; the Religious Freedom Restoration Act of 1993 (P.L. 103141); and the American Indian Religious Freedom Act of 1978. Federal guidelines direct federal agencies to consult with American Indian Tribal representatives who may have concerns about federal actions that may affect religious practices, other traditional cultural uses, as well as cultural resource sites and remains associated with American Indian ancestors. Any Tribe whose aboriginal territory occurs within a project area is afforded the opportunity to voice concerns for issues governed by National Historic Preservation Act, Native American Graves Protection and Repatriation Act, or American Indian Religious Freedom Act.

Federal responsibilities to consult with Indian Tribes are included in the, and Executive Orders 12875, 13007, 12866, and 13084

EO 12875 calls for regular consultation with tribal governments; and EO 13007 requires consultation with Indian Tribes and religious representatives on the access, use, and protection of Indian sacred sites. EO 12866 requires that federal agencies seek views of tribal officials before imposing regulatory requirements that might affect them; and EO 13084 provides direction regarding consultation and coordination with American Indian Tribes relative to fee waivers. The 40 CFR 1500-1508 regulations of the NEPA invite American Indian Tribes to participate in forest management projects and activities that may affect them.

Government-to-government consultation between the Forest Service, the Nez Perce and the Shoshone-Bannock Tribes regarding the Upper North Fork HFRA Ecosystem Restoration Project was initiated by scoping letter August 1, 2011. Consultation/coordination meetings (staff to staff) with the Shoshone-Bannock Tribes were conducted with the Tribes Resource Staff on May 10, 2011 and May 3, 2012, November 21, 2013, and March 20, 2014. The Tribes also received the draft environmental impact statement for review during the public comment period. They were given summary information and maps; and informed that no Native American archaeological sites were identified during the cultural

resource inventory and that there would be no known effects to such sites as a result of project implementation. The Tribes acknowledged these findings and were in agreement with the Forest's no effect determination. No requests were received for more detailed information from Tribal representatives.

The Fort Bridger Treaty of July 3, 1868

The Fort Bridger Treaty of July 3, 1868 retained hunting and fishing rights to Shoshone–Bannock tribal members on "all unoccupied lands of the United States." This right applies to all public domain lands that were reserved for National Forest System purposes that are presently administered by the Salmon- Challis National Forest. These rights are still in effect, and management actions recognize these rights. The reserved rights include hunting, fishing, and gathering. While the Treaty itself only specifies hunting, the lawsuit "State of Idaho vs. Tinno" established that any rights not specifically given up in the Treaty were, in fact, reserved by the Tribes.

Shoshone-Bannock Tribes Treaty Rights

The Fort Bridger Treaty of 1868 retains for the Shoshone – Bannock tribes off-reservation hunting and fishing rights on all public domain lands reserved for National Forest System purposes now administered by the Salmon-Challis National Forest. My decision will not interfere with Tribal members in exercising those rights. During formal government to government consultation meeting with the Tribal Business Council on the Upper North Fork HFRA Ecosystem Restoration Project the Forest committed to work with the Council to develop a mechanism for the Tribes to continue to exercise these off-Reservation Treaty rights in pursuit of traditional activities.

The Nez Perce Treaty of 1855

Article 3, between the United States of America and the Nez Perce Tribe mutually agreed that the Nez Perce retain the right of "… taking fish at all usual and accustomed places in common with citizens of the Territory [of Idaho]; and of creating temporary buildings for curing, together with the privilege of hunting, gathering roots and berries, and pasturing horses and cattle…" These rights apply to all public domain lands that were reserved for National Forest System purposes that are presently administered by the Salmon-Challis National Forest. These rights are still in effect, and management actions recognize these rights.

The relationship of the U.S. Government with American Indian Tribes is based on legal agreements between sovereign nations. Portions of the Salmon-Challis National Forest are located within ceded lands of the Nez Perce Tribe. Ceded lands are federal lands on which the federal government recognizes that a tribe has certain inherent rights conferred by treaty.

Consultation with Idaho Roadless Commission

The Governor of Idaho, through an Executive Order, provided for the establishment of a State Implementation Commission. The Idaho Roadless Commission was initially briefed on the project in September 2009 and in November 2011 and found no objection to it proceeding as proposed. The Idaho Roadless Commission was updated on the project in November 2012, March 2013, and May 2014.

Best Available Science

The conclusions disclosed in the Final Environmental Impact Statement and summarized in this document are based on a review of the project's record that reflects consideration of relevant scientific information and responsible opposing views where raised by internal or external sources, and the acknowledgement of

incomplete or unavailable information, scientific uncertainty, and/or risk where pertinent to the decision being made.

Implementation

Once the reviewing officer has issued the response to the objections and the responsible official has followed any instructions contained in the written response, or if no objections are received, the responsible official may sign the final Record of Decision and implement the project without further legal notice of the decision. Interested and affected parties will be informed of the decision. The signing of the Record of Decision in accordance with 40 CRF 1506.10, may occur on, but not before, the 5th business day following the end of the objection filing period.

Administrative Review or Objection Opportunities

This Draft Record of Decision and Final Environmental Impact Statement are subject to objection pursuant to 36 CFR 218, subparts A and C (Pre-Decisional Administrative Review). Objections will only be accepted from those who have previously submitted specific written comments regarding the proposed project during designated opportunities for public comment in accordance with §218.5(a). Issues raised in objections must be based on previously submitted, timely, specific written comments regarding the proposal unless based on new information arising after the designated comment opportunities.

A written objection must be submitted within 30 calendar days following the publication date of the legal notice of this opportunity to object in the *Recorder-Herald* Salmon, Idaho. All objections will be open to public inspection during the objection process. It is the responsibility of the objector to ensure their objection(s) is received in a timely manner. The publication date in the newspaper of record is the exclusive means for calculating the time to file an objection. Those wishing to object should not rely on date or timeframe information provided by any other source. The regulations prohibit extending the time to file an objection. Objections, including attachments, must be filed via mail, fax, email, hand-delivered, express delivery, or messenger service.

The objection must be filed with the objection reviewing officer in writing. The objection must contain the minimum requirements specified in §218.8(d) and incorporation of documents by reference is permitted only as provided in §218.8(b). At a minimum, the objection must include the following information (36 CFR 218.8(d)):

- The objector’s name and address, with a telephone number if available;
- A signature, or other verification of authorship upon request (a scanned signature for electronic mail may be filed with the objection);
- When multiple names are listed on an objection, identification of the lead objector and verification of the identity of the lead objector must be provided upon request;
- The name of the proposed project for which the decision will be made,
- the name and title of the Responsible Official, and the name of the forest and/or ranger district on which the proposed project will be implemented; and
- A description of those aspects of the proposed project addressed by the objection, including specific issues related to the proposed project; if applicable, how the objector believes the environmental analysis or draft decision specifically violates law, regulation, or policy; suggested remedies that would resolve the objection; supporting reasons for the reviewing officer to consider; and

- A statement that demonstrates the connection between prior specific written comments on the particular proposed project or activity and the content of the objection, unless the issue is based on new information that arose after the opportunity for comment;

Written objections must be submitted (regular mail) to: Chief, USDA Forest Service, ATTN: Objection Reviewing Officer, 1400 Independence Ave., SW, EMC-JAR, Mailstop 1104, Washington, D.C. 20250 (postal) or 202-649-1172 (facsimile). Electronic comments must be submitted in a format such as an email message, plain text (.txt), rich text format (.rtf), and Word (.doc or .docx) to: objections-chief@fs.fed.us

Physical address for UPS, FedEx, and hand deliveries: USDA Forest Service, ATTN: Objection Reviewing Officer, 201 14th Street SW, EMC-JAR, Mailstop 1104, Washington, D.C. 20250. Phone for carrier deliveries: 202-205-1449. The office business hours for those submitting hand-delivered comments are 8:00 a.m. to 5:00 p.m. Monday through Friday, excluding federal holidays.

Please type “Upper North Fork HFRA Ecosystem Restoration Project” in the subject line for e-mail messages and facsimile and include your mailing address and phone number.

An automated response should confirm your electronic objection has been received. In cases where no identifiable name is attached to an electronic message, a verification of identity will be required. A scanned signature is one way to provide verification.

If an objection is received on this project, a 30 day objection review period will begin. Prior to a written response by the reviewing officer, the reviewing officer or the objector may request to meet to discuss issues raised in the objection and any potential resolution. The reviewing officer has the discretion to determine whether or not adequate time remains in the review period to make a meeting with the objector practical. All meetings are open to the public. If you are interested in attending any resolution discussions, please contact Ken Rodgers at (208) 879-4154, who will provide you with the appropriate contact information for the Washington Office.

Objections can be dismissed for a number of reasons including if they are not timely, if the project is not subject to objection, if the person did not comment in a timely or specific manner, if insufficient or illegible information was presented, if identity cannot be provided, if the objector withdraws the objection, or if the responsible official cancels the objection process. The responsible official can cancel the objection process if he feels the objection process should be re-initiated; for example, if he believes additional information to the environmental impact statement is needed to further understand the project.

At the end of the objection reviewing period the reviewing officer may consolidate objections and issue one response or may decide to issue a written response to each objection. The written response(s) will present the reasons for the response, but is not required to be a point-by-point response. It may contain instructions to the responsible official. The written response will be the final decision by the U.S. Department of Agriculture on the objections.

Contact Person

For additional information concerning this decision contact Maggie Seaberg, Team Leader, North Fork Ranger Station, P.O. Box 180, 11 Casey Rd. North Fork, Idaho 83466, phone (208) 865-2711 or email margareteseaberg@fs.fed.us. For questions about the Forest Service objection process contact Ken Rodgers, phone (208) 879-4154 or email krodgers @fs.fed.us.

Nora Rasure
Regional Forester - Intermountain Region

Date

Alternative 1 – Proposed Action and Selected Alternative

The Forest Service proposes using the Healthy Forest Restoration Act authority to reduce wildfire risk to communities, to enhance efforts to protect watersheds, and address threats to forest and rangeland health, including catastrophic wildfire. Hazardous fuels treatments and associated opportunities have been identified for this project through extensive discussions, field surveys, fuel and vegetation modeling, focused site visits and numerous exchanges of ideas with the Lemhi County Forest Restoration Group collaborative group and other local community members.

A portion of the proposed activities under this action would be accomplished through mechanical and nonmechanical treatment methods. Nonmechanical treatments would be accomplished using prescribed fire and hand-felling techniques. The mechanical treatments are divided into two categories based upon their primary objectives; hazardous fuels reduction treatments and restoration treatments. If both mechanical and nonmechanical treatments occur on the same piece of ground, mechanical treatments would precede nonmechanical treatments. Details of the mechanical and nonmechanical treatments, as well as road/trail activities, aquatic habitat improvement projects, Forest Plan amendments to support the described actions, and the specifics of the proposed treatments in the Roadless Area are all described below.

Mechanical Treatments

The proposed mechanical treatments are divided into two categories based upon their primary objectives; hazardous fuels reduction treatments and restoration treatments.

Hazardous Fuels Reduction Treatments

Hazardous fuels reduction treatments would include treatments which have the primary objective of creating a resilient forest and vegetative structure that should not sustain crown fire or flame lengths greater than those that can be suppressed by hand crews. These treatments would also establish strategic fuel breaks for communities, values at risk, and to improve firefighter safety. These treatments would have a secondary restoration objective and would focus on ecosystem restoration to the extent that it does not compromise the hazardous fuels reduction efforts.

Hazardous fuels reduction treatments would include mechanical thinning from below to reduce understory and ladder fuels on approximately 4,535 acres of the project area. Ground based harvest systems using tractors would be utilized on 2,364 acres, skyline yarding systems would be utilized on 1,032.4 acres, and 1,139 acres would utilize helicopters for tree removal. All emphasis would be to retain large trees, some small (under 0.1 acres) clumps of trees, and diversity of structures within stands and across landscapes. Whole-tree yarding would be used to remove activity fuels and facilitate use of tree tops and slash as biomass or for pile burning. All slash piles would be left onsite for 1 year for possible biomass utilization or later burning.

Tree spacing for commercial thinning would be accomplished using an Individuals Clumps and Openings (ICO) method. The individual clumping and openings method is a stand-level approach to restoring the mosaic patterns of individual trees, clumps, and openings commonly found in pine and mixed conifer forests that have intact, frequent fire regimes (Larson and Churchill 2012).This method meets fuels objectives while still meeting the wildlife habitat cover standard. With the exception of areas immediately adjacent to private land, shaded fuel breaks, and access roads, the mechanical treatments would be implemented in such a manner as to create a complex mosaic of forest structures and seral stages.

Furthermore, with the same exceptions listed above, all mechanical activities would also be implemented to create, enhance and perpetuate variability of tree density within individual stands, characterized by a complex assemblage of gaps/openings, and small (under 0.1 acre in size) clumps of trees with interlocking crowns.

Approximately 970 acres of strategically located shaded fuel breaks are proposed for treatment. One is adjacent to the Lost Trail Ski Area and the other is adjacent to Moose Creek Estates. These areas would retain large trees wherever possible while still maintaining the integrity of the fuel break. Trees would be pruned and thinned commercially if markets allow; otherwise cut, handpiled and burned to achieve approximately 10 foot crown separation, reducing the potential for crown fire and increase fire control opportunities. All activity slash in these areas would be piled. Approximately 2 handpiles per acre would be retained for wildlife habitat.

Restoration Treatments

Restoration treatments would include those which primarily focus on restoring plant communities, improving habitat diversity for fish and wildlife, enhancing old growth stands and improving forest health. These proposed restoration treatments would also meet the hazardous fuels reduction goals of creating a fire resilient forest by reducing the potential for large-scale, high intensity wildfires that threaten human life, property and natural resources.

Approximately 1,291 acres of meadows have been identified within the project area for meadow restoration activities including hand felling, piling and burning of encroaching conifers and/or prescribed burning to reduce conifers while enhancing native herbaceous vegetation and brush cover.

There are many aspen and whitebark pine stands scattered throughout the project area that may be opportunistically treated during implementation. Treatments designed to restore and/or enhance productivity would include the removal of competitive species within and adjacent to aspen and whitebark pine stands. Restoration activities may also include using fire to create conditions conducive to natural regeneration of the aspen and caching whitebark pine seeds.

Ground disturbing mechanical activities directly associated with the proposed restoration activities would be limited to established mechanical units. Restoration efforts conducted outside these units would entail hand felling and burning only.

Nonmechanical Treatments

Prescribed Burning and Hand-Felling

All thinning (commercial/precommercial) units would receive a follow up prescribed burning treatment as outlined below. Up to 200 miles of fireline along unit perimeters would be needed to implement burning in commercial thinning units. This includes helicopter, precommercial thin, skyline and tractor unit perimeters.

Ladder fuels would be reduced along access roads in designated shaded fuel breaks only – 400 feet on each side of the road. Where other thinning is not planned this would be accomplished through hand felling, hand piling and burning (noncommercial 18 by 18 foot spacing).

Precommercial thinning of trees less than 7 inches diameter breast height (dbh) would be conducted in helicopter, tractor and skyline harvest units following commercial thinning to reduce ladder fuels and create 18 by 18 foot spacing in some, but not all pockets of healthy saplings for crown separation.

Precommercial thinning with these same specifications would also be conducted on 1,269 acres in select units as the only mechanical treatment needed for fuels reduction.

Noncommercial fuels treatments would occur on 445 acres which would include a combination of burning, hand thinning, pruning, hand piling to achieve the desired level of fuels reduction in each of the proposed units.

A number of burn units from about 500 – 5,000 acres over approximately 40,273 acres (excludes Lost Trail Ski Area and all inholdings) would be prescribed burned primarily during spring and fall spread out over a 5 to 10 year period. Fuels treatments would include broad scale, low to high intensity underburning in thinning units and in surrounding locations (including Idaho Roadless Area) to reduce concentrations of natural surface fuels and activity generated slash from commercial, precommercial and hand thinning. The result or the underburning would be a mosaic burn pattern of varying intensities across the entire project area creating a more fire-resilient landscape. An additional 15.5 miles of fireline along burn unit perimeters could potentially be needed. Pile burning would occur where hand or machine piles remained after treatment and biomass utilization.

All of the designated old growth stands should receive a ladder fuel reduction treatment in the form of low intensity fire or thinning of the small diameter or a combination of both. Designated old growth stands that have or are near a road would receive a thinning of the small diameter followed by a pile or low intensity broadcast burn. Those units requiring a substantial hike in would receive a fire only treatment, of low intensity.

Roads and Trails

The project would utilize a combination of existing system, non-system and newly constructed temporary roads. System roads are defined as those identified as open in the Salmon-Challis National Forest Travel Plan. Non-system roads are defined as unauthorized routes that are not identified as open to vehicular travel in the Travel Plan, commonly referred to as closed routes. Many of these routes are abandoned “temporary” roads that were authorized for short periods of time to facilitate timber harvest, suppress fire or other activities. Others may have been built as part of the system but later abandoned due to reduced transportation needs resulting from either change in management plans or changes in timber harvesting methods or technology. Finally, some roads were likely created by forest users without ever having been authorized. Newly constructed temporary roads are being proposed only where the existing road prisms do not meet project needs. Historically, temporary roads on timber sales were not removed or obliterated but were closed by blocking vehicular traffic through barriers or berms, which allowed natural reestablishment of vegetation. The proposed project would minimize additional construction by utilizing, to the extent possible, existing road prisms and create an opportunity to decommission these and other non-system roads.

The project would utilize up to 94 miles of existing system roads and an estimated 26 miles of non-system roads to complete the treatments. 13.9 miles of new temporary route would be constructed, and 2.1 miles of that would be located in an Idaho roadless area. These routes are short term (less than 2 years) and would be built, utilized for project specific uses, and then immediately rehabilitated through a variety of restoration treatments. Additionally, 12.2 miles of route would be upgraded to meet road standards on routes that are currently closed. These routes would be utilized only for administrative uses to access project areas for fuels reduction activities and would also be rehabilitated after completion of the project. An additional 66.3 miles of route that currently have a closed designation would be rehabilitated through a variety of restoration treatments. No changes in public access are proposed during or after the implementation of the project.

Making closed roads suitable for safe travel is generally limited to removal of earth barriers, slough and debris removal, brushing and minor repairs to drainage features. Replacing these barriers or other methods of road-closure would occur at the conclusion of the project. It is anticipated that most would be opened and reclosed in the same season but could be used for more than one season depending on the scheduling of treatments. Temporary roads would be treated similarly with decommissioning occurring at the completion of project activities supported by the route.

Decommissioning of temporary or unauthorized roads is intended to eliminate the use of the route and facilitate a rapid return to vegetative production within the disturbed area. Fewer road prisms on the landscape reduce the risk of sediment being transported to streams and improve wildlife habitat security. A range of treatments may be used to achieve effective decommissioning of a road. Roads used for timber harvest or other treatments would require higher levels of treatment in order to eliminate compaction, restore vegetation and prevent drainage problems. Most of these roads would be treated by full or partial re-contouring, removal of temporary drainage structures, slash placement and seeding. Roads identified for decommissioning but not used for treatment activities, may only need entrance treatments to eliminate potential traffic and allow a full return to vegetative production.

Closing system roads differs from decommissioning in that the intent is to preserve the prism for future use while minimizing maintenance needs and resource risks. Typical closure treatments would include scarification and seeding, vehicle barriers such as gates or earth berms and in some cases temporary removal of culverts or drainage structures to minimize watershed risks.

Aquatic Habitat Improvements and Culvert Replacements

This project proposes instream aquatic habitat enhancement activities to help restore spawning and rearing habitat for Chinook salmon, steelhead/rainbow trout, bull trout and westslope cutthroat trout. The enhancements would occur within a 150 meter reach of the North Fork Salmon River at the confluence with Twin Creek. Stream enhancement activities would include hand labor and machine construction of two instream rock structures and approximately 12 random boulder placements.

The Deep Creek, Hammerean Creek and Johnson Gulch culverts would be replaced with new structures that would allow passage for all aquatic organisms, including fish. These three streams support westslope cutthroat trout populations. Details regarding the design and placement of aquatic habitat treatments and culverts can be found in the soils and hydrology specialist’s report located in the project record.

Idaho Roadless

The proposed action would include treatments inside the Allan Mountain, Anderson Mountain, and West Big Hole Idaho Roadless Areas. Table 3 summarizes the current allocation of Idaho roadless areas within the project area as well as all proposed treatments in designated Idaho roadless areas.

The Forest Service has worked with the Idaho Roadless Commission (Commission) over the course of three meetings to develop the list of at risk communities within the project and the community protection zone which is an important step in developing the proposed action for projects in Idaho Roadless Areas. The Commission participated in a field trip to the project area on September 29, 2010 and suggested a few minor changes to the community protection zone that better reflected the level of current and projected development on the adjacent private land in the Moose Creek area. The Commission has expressed support for this project and the Forest Service will continue to work closely with them as the project progresses.

Proposed Site-Specific Forest Plan Amendments

In order to meet the objectives of the project and the purpose and need for the project as described in this document, the following site-specific amendments to the Salmon National Forest Land and Resource Management Plan (Forest Plan) are included as part of this proposal.

Utilizing wildfire for multiple use objectives – Amendment 1

The deciding official proposes to amend the Salmon Forest Plan Forestwide Direction for the project area excluding the Allan Mountain Research Natural Area. This proposed site specific Forest Plan amendment constitutes an effort to readjust and clarify schedules to reach the goals and objectives of the Plan. Wildland fire would be allowed to play a natural role in the Upper North Fork Ecosystem Restoration Project Area. It would allow the line officer to manage wildland fire in the project area under specific prescription parameters.

Each decision regarding prescription parameters for using wildland fire as a management tool would be on a case by case basis. The forest fire management officer, district ranger and forest supervisor would meet to discuss these opportunities as they occur. Things that would be considered are current fuels conditions, seasonal trends, current and expected weather forecast, time of year/month, and other fires burning in the area. Consulting with the adjacent Bitterroot or Beaverhead-Deerlodge Forest in these discussions would be important because fire in the project area has potential to burn onto one of those adjacent forests.

The 1988 Establishment Record for Allan Mountain Research Natural Area includes language requiring a high level of fire protection. Fire would not be used as a tool to induce or maintain seral species. Wildfires that originate within the area would be suppressed as soon as practicable by methods that cause the least disturbance.

Modification of riparian habitat conservation areas – Amendment 3

Currently the Forest Plan contains direction regarding Pacific Anadromous Fish Strategy riparian habitat conservation areas. This direction prohibits commercial timber harvest within Pacific Anadromous Fish Strategy riparian habitat conservation areas. Within the project area there are currently 37.5 stream miles with a 300 foot riparian habitat conservation area buffer, 47.5 stream miles with a 150 foot riparian habitat conservation area buffer, and 57.6 stream miles with a 100 foot riparian habitat conservation area buffer. The Pacific Anadromous Fish Strategy standard widths defining riparian habitat conservation areas are as follows:

- **a.** 300 feet on either side of fish bearing streams,
- **b.** 150 feet on either side of permanently flowing non-fish bearing streams,
- **c.** 150 feet around the outer edges from riparian vegetation for ponds, lakes, reservoirs and wetlands greater than 1 acre,
- **d.** 100 feet on either side of seasonally flowing or intermittent streams and around the outer edges from riparian vegetation for wetlands less than 1 acre, landslides and landslide prone areas.

In order to achieve the fuels reduction objective in this Healthy Forest Restoration Act project, the above Pacific Anadromous Fish Strategy riparian habitat conservation area buffer widths would be modified to the road allowing mechanical treatment (commercial thinning for fuels reduction) above the road outside of the modified riparian habitat conservation areas. This modification would only take place where there is a road within the riparian habitat conservation area buffer between the unit boundary and the stream

channel. Eleven fuels reduction units would be affected by this proposed modification adding approximately 75 acres to the commercial thinning treatments.

Table 3. Alternative 1 summary of proposed treatments

Proposed Treatments		National Forest (Outside Roadless)	Treatments in Idaho Roadless Areas			Total Treatment
			Inside CPZ[a]	Outside CPZ[a]	Total	
Rx Burn	Acres	17,665	5,729	16,432	22,161	**39,826**
Precommercial Thin		1,268	2	0	2	**1,270**
Shaded Fuel Break		783	192	0	192	**970**
Noncommercial Fuels Treatment		445	0	0	0	**445**
Commercial Thin – All Logging Systems		3,935	583	2	585	**4,520**
Meadow Treatment		101	168	1,022	1,190	**1,291**
Designated Old Growth Treatment		1321	715	1527	2242	**3563**
Temporary Road Construction	Miles	23.95	2.13	0	2.13	**26.08**
Road Decommissioning		63.84	0.72	2.17	2.99	**66.83**
Improved Fish Passage	Meters	150				**150**
Culvert Replacement	Number	3				**3**
Stream Restoration	Miles	3				**3**

a - CPZ – Community Protection Zone

Appendix A – Integrated Design Features and Monitoring Requirements

We developed design features based on standard operating procedures, best management practices, Forest Plan standards and guides, and other procedural direction to eliminate or mitigate potential impacts during project implementation. We also developed specific monitoring requirements to address nonroutine information needs in the project area.

We are currently involved with the Lemhi County Forest Restoration Group in developing a monitoring plan to assess key ecological effects of this project with its implementation. Section 102(g)(5) of the Healthy Forest Restoration Act provides for establishment of multiparty monitoring, evaluation and accountability processes where significant interest is expressed.

Unit cards for this project will include detailed entries and maps of each treatment unit with a comprehensive description of acres involved, activities, design, and other features. These entries provide the primary guidance for project layout and implementation.

Design Features

During the development phase of the project, various design measures were incorporated to address specific resource needs and opportunities, lessen potential impacts and to avoid potential resource damage. Measures include using best management practices (all applicable IDAPA 20.02.01 Rules Pertaining to the Idaho Forest Practices Act will be followed. These are enumerated in a separate document.), standard timber sale contract provisions, regular operational procedures, and other measures developed through resource specialist input and Interdisciplinary Team interactions. Design features of particular importance to this project include:

Forested Vegetation

Please see the Visual Resources section of this appendix (page 43) for additional design features related to mechanical treatments for managing visual impacts.

4. Emphasis on large tree retention. Priority for leave trees would be largest diameter ponderosa pine and largest diameter Douglas-fir, then largest diameter lodgepole pine, insect and disease free, largest crown, trees with tallest height, straightest stem. Favor ponderosa pine over Douglas-fir where characteristics are similar, favor Douglas-fir over lodgepole pine where characteristics are similar and favor/enhance aspen wherever it occurs. Trees greater than 7.0 inches dbh would be considered commercial size. There would be no harvest in designated old growth retention stands.
5. Whole tree skidding in tractor units and yarding of top slash in cable units (some exceptions) during commercial thinning to designated landings to facilitate biomass utilization of slash remaining on landings for both economic opportunity, reduction of material to be burned and subsequent smoke emissions. Delay handpile/slash pile burning and/or underburning until October 1 the year following thinning to allow chance for removal/use.
6. The normal operating season for commercial thinning would be from July 1 to November 30 (inclusive) to minimize Ips beetle buildup in slash then spread to residual/adjacent stands (Contract Provision RO-CT6.45 Protection from Ips Buildup (11/98)).

Fire and Fuels

7. Up to 80 percent of the project area will be prescribed burned. Areas that are mechanically thinned/harvested will be will receive a low intensity underburn (Low<25 percent); areas not mechanically thinned will receive a mixed to high severity burn (Mixed 25-75 percent, High > 75 percent top kill).
8. Filter strips are areas immediately adjacent to streams where no ground disturbing activities are permitted. They are designed to reduce sediment delivery from harvest units and other surface disturbances. Width recommendations for filter strips are dependent on the type of parent material, percent slope and percent ground cover and may range from 20 to 345 feet wide based on site conditions. Guidelines for filter strip width recommendations are presented on Pages IV-58 and IV-59 of the Salmon Forest Plan. Backing fire would be allowed into the filter strips as recommended by the fisheries biologist to the prescribed fire burn boss. To maintain water quality no ignition material; such as helitorch gel, drip torch fuel, or plastic spheres would be allowed in filter strips but fire would be allowed to back into these areas.
9. All piles regardless of construction type will be left on site for one year for both biomass utilization and drying.
10. Hand piles would be at least 4 feet by 4 feet by 5 feet tall and include at least one 3x3 foot piece of kraft paper in the pile. Parameters for hand piles are as follows:
    - Hand piles shall be at least 4 feet by 4 feet by 5 feet tall measured from high ground;
    - The diameter of the pile shall not exceed twice the height;
    - Piles shall be compact to facilitate burning;
    - All piles shall have a solid base to prevent the pile from toppling;
    - At least one 3 foot x 3 foot piece of 50# poly coated Kraft paper shall be placed in piles;
    - The paper shall cover an area containing small slash – small branches less than ¼ inch in diameter to ½ inch in diameter and small branches with needles attached that form a part of the bottom pile layer;
    - The paper shall not be less than 2 feet from the pile bottom, and located in the center of the pile;
    - Piles shall be oriented on the slope to prevent material from rolling downhill;
    - Piles shall be constructed in suitable locations for their individual size to prevent heat damage to residual trees;
    - Piles shall be at least ten (10) feet from the bole of any standing tree or snag;
    - Piles shall not be constructed on scree slopes;
    - Piles shall not be constructed within 1 chain of private property lines or fence;
11. Travel routes to be used during prescribed burning would be the existing road system as managed for access for mechanical thinning. No additional routes would be developed or opened for burning or other noncommercial activities.

Air Quality

12. Ensure that all prescribed burns are coordinated with the Montana/Idaho Airshed group.
13. Ensure that all activities conform to the State Implementation Plan.

14. Employ avoidance techniques such as burning on cloudy days when the plume and residual smoke cannot be seen, burning during periods of atmospheric instability for better smoke dispersal, and burning during periods of low visitor use.
15. Consider stopping ignitions early enough in the day to allow ventilation of smoke to avoid smoke settling into areas for the night.
16. Employ commonly used reduction techniques such as burning units after harvest before new live fuels appear; burning in the springtime prior to "green-up," burning when 1,000-hour fuels (woody debris larger than 3 inches in diameter) moistures are high, and burning when the duff is wet (after fall precipitation, or during winter and spring).
17. Employ techniques to optimize flaming combustion, including burning piled fuels rather than broadcast burning, reducing the amount of soil in piles, and employing rapid ignition to create a high intensity fire.
18. Idaho/Montana Airshed Group operational plan would guide smoke management.

Transportation

19. Pre-haul maintenance would be conducted to restore roads to a suitable condition for the proposed activity and use objectives for the roads. Work may include opening of closed roads, brushing and limbing encroaching vegetation, restoration or replacement of damaged running surface, and maintenance of the drainage system, including ditches, rubber water deflectors, drain dips and template crowns or cross slopes. Slash from clearing of encroaching vegetation would be piled on the road or on a landing to avoid adverse effects from burning.
20. Post-activity maintenance would remove traffic related defects, restore drainage and traffic control features modified to accommodate project traffic and comply with the established road management objectives. The intent is to close roads that were only to be opened for timber hauling and associated fuels reduction activities and to correct any problems that result from the use of the road by the commercial user (i.e. ruts, wheel depressions, damaged structures etc.).
21. Identify all unauthorized roads to be used in this project to facilitate prescribed mechanical treatments. Treat roads as temporary roads and decommission on completion of the treatment activities. (See also #28).
22. Utilize existing traffic control features such as gates to control public access in the project area and in accordance with the Forest Travel Plan. Where earthen barriers are removed to access treatment areas, utilize a combination of temporary traffic control devices such as signs, temporary gates, portable barricades or other means to eliminate unauthorized traffic. All temporary traffic control devices must both meet and be installed in accordance with applicable standards in the latest edition of the Manual of Uniform Traffic Control Devices. Replace earthen barriers during extended periods of inactivity.
23. Maintain standard clearing widths and sight distances on open roads and remove any trees on or above the cut slope that have been destabilized by construction, reconstruction or maintenance. Minimize general clearing widths on temporary roads to the limits of the cut and fill to help screen the road, while removing unstable or hazardous trees.
24. Chemical dust palliative applications would be applied annually as needed during haul periods to some open road systems following standard operating procedures identified in Appendix J of the Roads Programmatic BA (USDA, Forest Service, 2002b) and the Monitoring Report for Salmon-Challis National Forest Dust Abatement Operations (USDA, Forest Service, 2008).

Noxious Weeds

25. Include contract provisions for timber sale and road construction activities mandating equipment cleaning and inspection prior to use on or off-roads to prevent the introduction or spread of noxious weeds through their seeds, vegetative propagules, or plant parts. This applies to rental equipment as well as contractor equipment.
26. For prescribed fire actions, use staging areas and helibases that are maintained in a weed free condition.
27. Clean all equipment before leaving the project site if operating in areas infested with weeds. Determine the need for and when appropriate identify sites where equipment can be cleaned. Adjacent units infested with weeds should be treated before moving to weed free units. Seeds and plant parts need to be collected when practical and incinerated.
28. Retain as much shade and ground cover to the extent possible in forested types to suppress weeds and to prevent weed establishment, growth and spread. Minimize soil disturbance to the extent practical, consistent with project objectives as described in design features numbered 20, 21, 35, 118, and 120.
29. Retain desirable vegetation and ground cover in and around project activity areas to the maximum extent possible consistent with project objectives.
30. Reestablish desirable vegetation to prevent bare ground conditions that favor weed establishment and spread (see design feature 78 for mixes).
    - Disturbed sites (areas made bare and compacted during project implementation) would have seedbeds prepared for reestablishing desirable vegetation. Site preparation would consist of one or more of the following actions: contouring, terracing, ripping, and scarifying; and integrate with design feature number 123.
    - For currently closed roads that have been reopened for the project and temporary roads in heavily weed infested areas; revegetate road surfaces with a seed mix that competes well with noxious weeds as a last project implementation action in those areas..
31. Monitor project area regularly using early detection/rapid response strategies to detect, control and eradicate weed species, infestations introduced into the project area, and new invaders. Establish permanent monitoring transects in harvest units, burn units and control units to assess soil erosion indicators, vegetation composition and cover, and shrub and weed density. These data would be sampled from transects located within areas most susceptible to ecological effects of noxious weed invasion.
32. Where possible, avoid or protect release sites of insects for biological control of noxious weeds.
33. Minimize fireline construction to prevent spread of noxious weeds.
34. Use staging areas and helibases maintained in weed free condition.
35. Inventory roads and schedule noxious weed infested roads for weed treatment prior to commencement of project activities. (See also #28).
36. For currently closed roads that have been reopened for the project and temporary roads in heavily weed infested areas; revegetate road surfaces with a seed mix that competes well with noxious weeds. (See design feature 78 for appropriate seed mixtures).

Visual Resources

Project design feature numbers 37 through 45 are general to the project as a whole.

37. Blend units including fuel breaks with natural landscape features such as natural openings, and rock outcrops. Harvest units should be shaped to mimic natural patterns found in the landscape. Do not use straight lines or geometric shapes for unit design. Unit edges should be natural appearing, to mimic the adjacent natural landscape character (uneven/feathered).
38. Do not locate landings perpendicular to the road. Landings should be located so the forest visitor cannot look up a road and see right into the landing. Landing needs to be set off from the main road at an angle whenever possible.
39. Thin forest vegetation to achieve a more attractive, open and diverse condition consistent with the historic range of the project area scenery, emphasizing the long-term presence of aspen and the larger conifers in a clumpy and irregular distribution.
40. Unit boundary marking on trees would be done on the opposite side of the tree from where it is seen from trails, roads, dispersed and developed sites.
41. Involve a Landscape Architect with initial layout strategy with other resource specialist including timber and fuels layout crews. A portion of the project area that is representative of the whole project area may be used to convey specific resource prescriptions and overall marking strategies.
42. Identify “buffer” trees along the skid trails to decrease the potential damage to the remaining trees. Remove the buffer trees that are severely damaged after hauling on the skid trail is completed.
43. No skid trails would be located parallel to system roads within 100 feet where practical.
44. Whenever possible and when skid trails would still function properly, locate skid trails so they are not perpendicular where they meet the highway or other main roads. This would avoid a direct line of sight into the skid trail.
45. Temporary road construction would be designed to meet the visual quality objective. The location of the road should fit the landscape with a minimum degree of landform alteration limiting the amount of earthwork. Planning the design of alignments and reseeding of cut and fill slopes needs to consider minimizing impacts to scenic resources. Avoid excessive cut and fill slopes for road construction.

Project design features number 46 through 54 apply to the immediate foreground within 300 feet of sensitivity Level 1 road and trail corridors, developed sites (trailheads), dwellings and private land.

This applies to the following trails: Twin Creek and Twin Creek Ridge, Divide National Recreation Trail, Powder Gulch, Pierce Creek, and the Continental Divide National Scenic Trail. Recreation areas include Twin Creek Campground, Chief Joseph Ski Area and Highway 93.

46. Flush cut stumps within 4” of the uphill side of the stump where practicable. Stumps would be cut within 4” of the uphill side of the stump using B6.412 (provision B6.412 allows to determine stump height AT8-contract CA standard height is 12”). Where cutting to 4” is not practicable, flush cut stump no higher than 12 inches on uphill side of the slope. (Covered in normal contract clauses).
47. Where skid trails are readily visible to concentrations of recreational users, leave natural features (trees, shrubs, logs, rocks, etc.) that would aid in blocking/closing these trails to unauthorized motorized use.
48. Tree prune heights would not exceed 6-8 feet.

49. Remove slash within 300' buffer when timber harvesting activities are within sensitivity level one corridors.
50. Areas where slash would be burned: Remove slash within 300 feet from sensitive area. Pile and burn the slash at least 300 feet away from sensitivity level 1 corridor or use area.
51. After burning is complete, burn sites that are visible from roads, trails, developed sites, or private dwellings would be covered with natural duff to a minimum of 3 inches to minimize visibility of the burned area.
52. Areas where burning would not occur until after 2 growing seasons: Remove slash within 150 feet from sensitive area. In the 150-200 feet zone lop and scatter slash to 18" or less in depth. (C-6.7).
53. Minimize the amount of skyline corridors that are visible from sensitivity level 1 areas by locating them so that forest visitors won't have direct views looking up or down the corridors.
54. Avoid locating landings in the immediate foreground of all sensitivity level 1 areas.

Project design feature numbers 55 through 62 apply to Retention Visual Quality Objective units:

55. Slash, consisting of trees and limbs, would be randomly lopped and scattered over the disturbed areas to a depth no higher than 18". The effect of scattering the slash should mimic the adjacent natural environment. If the area is adjacent to a sensitivity level 1 corridor or use area, the slash would have to be located a minimum of 300 feet away from those areas.
56. To minimize the evidence of treatments by reducing the buildup of slash, tree felling would be directed away from the direction of sensitivity level 1 areas.
57. In order to meet retention and make prescribed fire areas appear more natural by blending them in with existing vegetation, burned areas in the foreground should be small (0 to ½ mile), and have a mosaic of burned and unburned islands. (Agriculture Handbook # 608, Pg. 28 and 29.)
58. Slash piles would be burned to achieve 95 percent or more consumption. Following burning, concentrations of unconsumed slash would be scattered.
59. The burning of piles created between June and September of any year should be burned in September through November, unless fuel or weather conditions are not conducive for attaining the 95 percent consumption objective. If this occurs, slash piles would be burned the following spring as soon as weather conditions permit.
60. Slash piles created during a winter harvest operation should be burned by the following September through November period, or whenever possible after the piles have cured.
61. Minimize the amount of skyline corridors that are visible in retention visual quality objective by locating them so that forest visitors won't have direct views looking up or down the corridors. When corridors would be located in retention feather the edges of the corridors to avoid straight lines.
62. Avoid locating landings in retention visual quality objective to the extent possible.

Soils, Water and Fisheries

63. "Treat disturbed areas resulting from management activities in the shortest time possible to meet water quality objectives." (Forest Plan, pg. IV-46)
64. Select for each harvesting operation the logging method and type of equipment adapted to the given slope, landscape and soil properties in order to minimize soil erosion. (IDAPA 20.02.01.030.03)

65. Ground based skidding shall not be conducted if it will cause rutting (four inch rut depth is the trigger point for severe rutting), deep soil disturbance, or accelerated erosion. On slopes exceeding 45 percent (45 percent) gradient, ground based skidding shall not be conducted except with an approved variance (IDAPA 20.02.01.30.03a).
66. Limit the grade of constructed skid trails on geologically unstable, saturated, or highly erodible or easily compacted soils to a maximum of 30 percent (30 percent). (IDAPA 20.02.01.30.03b)
67. In accordance with appropriate silvicultural prescriptions, skid trails shall be kept to the minimum feasible width and number. Tractors used for skidding shall be limited to the size appropriate for the job. (IDAPA 20.02.01.30.03c)
68. Uphill cable yarding is preferred. Where downhill yarding is used, reasonable care shall be taken to lift the leading end of the log to minimize downhill movement of slash and soils. (IDAPA 20.02.01.30.03d)
69. "Stabilize landings, skid trails and fire lines whenever they are subject to erosion, by water barring, cross draining, outsloping, scarifying, seeding or other suitable means. This work shall be kept current to prevent erosion prior to fall and spring runoff." (Forest Plan, pg IV-34)
70. "Ephemeral draws should have minimal disturbance from timber harvest equipment. Crossings and skid trails should be at right angles to draws. (Forest Plan, pg IV-34)
71. Locate landings, skid trails, and fire lines on stable areas to prevent the risk of material entering streams. (IDAPA 20.02.01.30.04)
72. All new or reconstructed landings, skid trails, and fire lines shall be located on stable areas outside the appropriate Pacfish buffers. Locate fire and skid trails where sidecasting is held to a minimum. (IDAPA 20.02.01.30.04a)
73. To prevent landslides, fill material used in landing construction shall be free of loose stumps and excessive accumulations of slash. On slopes where sidecasting is necessary, landings shall be stabilized by use of seeding, compaction, riprapping, benching, mulching or other suitable means. (IDAPA 20.02.01.30.04c)
74. For each landing, skid trail or fire lines a drainage system shall be provided and maintained that will control the dispersal of surface water to minimize erosion. (IDAPA 20.02.01.30.05c)
75. Reshape landings as needed to facilitate drainage prior to fall and spring runoff. Stabilize all landings by establishing ground cover or by some other means within one (1) year after harvesting is completed. (IDAPA 20.02.01.30.05b)
76. Recommended spacing distances for water bars on tractor skid trails would be:

Table 4. Recommended spacing distances for water bars on tractor skid trails

Skid Trail Water Bar Spacing (In Feet)			
Gradient (%)	**Sediments and Quartzite**	**Volcanics**	**Granitics**
0-10	200	80	75
10-20	160	70	65
20-30	110	55	50
30-40	80	40	35
40-50	60	35	20
50-60	45	--	--

(Forest Plan, pg IV-34)

77. Soil disturbing projects with moderate or higher erosion potential would be seeded with protective vegetation unless the following conditions exist (Forest Plan, pg IV-44):
    - **a.** Natural revegetation is expected to provide ground cover within one year of project completion; or
    - **b.** Project objectives require minimum ground cover, in which case other erosion control procedures would be applied.
78. Use appropriate seed mix as identified in the unit cards.

Table 5. Appropriate seed mixes

Road Mix	Mesic Mix	Xeric Mix
Orchard Grass (*Dactylis glomerata*) Recommended Rate: 1 lb PLS/acre. Variety: Paiute Seeds/Lb : 654,000 Seeds/Ft2: 15	June grass (*Koehleria macrantha*) Recommended Rate: 0.5 lbs PLS/acre. Variety: NA Seeds/Lb : 2,315,400 Seeds/Ft2: 27	Bluebunch Wheatgrass (coated seed) (*Pseudoroegneria spicata*) Recommended Rate: 10 lbs PLS/acre. Variety: P-7 Seeds/Lb : 140,000 Seeds/Ft2: 32
Timothy (*Phleum pretense*) Recommended Rate: 1 lb PLS/acre. Variety: Climax Seeds/Lb: 1,300,000 Seeds/Ft2: 30	Idaho fescue (*Festuca idahoensis*) Recommended Rate: 2 lbs PLS/acre. Variety: Winchester Seeds/Lb : 450,000 Seeds/Ft2: 21	Sandberg Bluegrass (*Poa secunda ssp. sanbergii*) Recommended Rate: 2 lbs PLS/acre. Variety: High Plains Seeds/Lb : 1,047,000 Seeds/Ft2: 48
Basin Wildrye (*Leyymus cinereus*) Recommended Rate: 2 lbs PLS/acre. Variety: Trailhead Seeds/Lb: 130,000 seeds/lb Seeds/Ft2: 6	Mountain brome (*Bromus marginatus*) Recommended Rate: 5 lbs PLS/acre. Variety: Garnet Seeds/Lb : 64,000 Seeds/Ft2: 7	Needle and Thread (*Hesperostipa comata*) Recommended Rate: 10 lbs PLS/acre. Variety: NA Seeds/Lb : 115,000 Seeds/Ft2: 26
Intermediate Wheatgrass (*Thinopyrum intermedium*) Recommended Rate: 5 lbs PLS/acre. Variety: Oahe Seeds/Lb: 88,000 Seeds/Ft2: 10	Western wheatgrass (*Pascopyrum smithii*) Recommended Rate: 5 lbs PLS/acre. Variety: Walsh Seeds/Lb : 110,000 Seeds/Ft2: 13	Lupine, Silky OR Silverleaf (*Lupinus sericeusI OR Lupinus argenteus*) Recommended Rate: 20 lbs PLS/acre. MUST have stratification. Variety: NA Seeds/Lb : 12,900 Seeds/Ft2: 6
Meadow Brome (*Bromus biebersteinii*) Recommended Rate: 5 lbs PLS/acre. Variety: Paddock Seeds/Lb: 80,000 Seeds/Ft2: 9	Lupine, Silky (*Lupinus sericeus*) Recommended Rate: 20 lbs PLS/acre. MUST have stratification. Variety: NA Seeds/Lb : 12,900 Seeds/Ft2: 6	Sulfur Buckwheat (*Eriogonum umbellatum*) Recommended Rate: 4 lbs PLS per acre. Variety: NA Seeds/Lb : 209,000 Seeds/Ft2: 19
Western wheatgrass (*Pascopyrum smithii*) Recommended Rate: 5 lbs PLS/acre. Variety: Walsh Seeds/Lb: 110,000 Seeds/Ft2: 13	Fireweed (*Epilobium angustifolium*) Recommended Rate: 0.1 lbs PLS/acre. Variety: NA Seeds/Lb : 8,500,000 Seeds/Ft2: 20	Prairie Sage (*Artemisia ludoviciana*) Recommended Rate: 0.25 lbs PLS/acre, note that germination is often low. Variety: Summit Seeds/Lb : 4,500,000 Seeds/Ft2: 26
Yarrow (*Achillea millefolium*) Recommended Rate: 0.25 lb PLS/acre. Variety: NA Seeds/Lb: 2,770,000 Seeds/Ft2: 16	Sticky Geranium (*Geranium viscosissimum*) Recommended Rate: 6 lbs PLS/ acre (due to sporadic germination) Variety: NA Seeds/Lb : 52,000 Seeds/Ft2: 7	

Road Mix	Mesic Mix	Xeric Mix
Annual Sunflower (*Helianthus annuus*) Recommended Rate: 0.5 lb PLS/acre. Variety: NA Seeds/Lb: 58,500 Seeds/Ft2: 1		
Prairie Sage (*Artemisia ludoviciana*) Recommended Rate: 0.25 lb PLS/acre, note that germination is often low. Variety: Summit Seeds/Lb: 4,500,000 Seeds/Ft2: 26		
TOTALS:	**TOTALS:**	**TOTALS:**
Species in Seed Mix: 9	Species in Seed Mix: 7	Species in Seed Mix: 6
Seeds/Acre: 6,575,750	Seeds/Acre: 4,347,700	Seeds/Acre: 6,863,000
Seeds/Ft2: 125	Seeds/Ft2: 100	Seeds/Ft2: 158

Other requirements:

- All species and cultivars shall be purchased as "Certified Seed" and "Source Identified Seed" unless
    - No cultivar exists (e.g. native forbs for which no cultivated variety exists (see table 5 above).
    - otherwise approved by the Salmon-Challis National Forest timber sale administrator or Contracting Officer's Representative.
- No seed may be purchase that contains Idaho listed Noxious Weed Species or Salmon-Challis National Forest Watch List species.
- Bluebunch Wheatgrass (*Pseudoroegneria spicata*) shall be purchased as a coated seed to improve germination.
- Silky Lupine (*Lupinus sericeus*) must be planted in the fall to ensure stratification from freeze and thaw cycles.
- Ask the supplier and purchase the correct inoculum for silky lupine.
- **NO substitution** of species or cultivars without prior written consent of the Salmon-Challis National Forest timber sale administrator or Contracting Officer's Representative.

79. Deposit waste material from construction or maintenance of landings and skid and fire trails in geologically stable locations outside of the appropriate Pacific Anadromous Fish Strategy buffers. (IDAPA 20.02.01.30.06c)
80. During and after forest practice operations, stream beds and streamside vegetation shall be protected to leave them in the most natural condition as possible to maintain water quality and aquatic habitat. (IDAPA 20.02.01.30.07)
81. Avoid conducting operations along bogs, swamps, wet meadows, springs, seeps, wet draws or other sources where the presence of water is indicated, protect soil and vegetation from disturbance which

would cause adverse effects on water quality, quantity and wildlife and aquatic habitat. (IDAPA 20.02.01.30.07c)

82. No commercial harvest within Pacific Anadromous Fish Strategy or modified Pacific Anadromous Fish Strategy riparian habitat conservation areas. (Forest Plan Amendment#3)

Aquatic Habitat Improvements and Culvert Replacements

83. All necessary permits would be obtained from the COE/IDWR/DEQ.
84. All construction actions would meet Pacific Anadromous Fish Strategy standards and guidelines.
85. Materials to be used (equipment, erosion control materials, vegetation) would be approved by the contracting officer's representative or inspector.
86. All equipment used would be inspected prior to its arrival on the site. The equipment must be free of oil, fuel, or toxic leaks that would wash off into water. (See also #27 under noxious weeds).
87. No blasting would be conducted in association with project activities.
88. Instream activities shall not occur when listed fish are spawning or redds are present immediately downstream of the project area. Surveys would be conducted by fisheries staff to ensure that this criterion is met.
89. Sediment control measures would be employed to ensure that sediment delivery to live waters is minimized both temporally and spatially to minimize effects to listed species within or downstream of the project area.
90. Construction work would be put on hold during any intense seasonal storms, to reduce surface runoff and sediment input to streams.
91. Erosion control practices would be implemented concurrently with the associated activity and in place at the end of each day.
92. The contracting officer's representative or appointed inspector would follow the erosion control plan and would be onsite daily for culvert replacements.
93. All design features as described in the Erosion Control and Revegetation Plan would be applied. These features are presented to clarify activities related to potential sediment delivery.
94. All construction activities shall be conducted in such a manner so as to minimize turbidity and comply with Idaho water quality standards. If these standards cannot be maintained, the applicant shall contact the Idaho Falls office of the Division of Environmental Quality.
95. The work window for instream restoration work in the North Fork Salmon River would be July 7 through August 15 to avoid or minimize impacts to spawning and incubating salmonids.
96. The work window for culvert restoration work in three tributaries to the North Fork Salmon River would be during low water after July 31st to avoid or minimize impacts to spawning and incubating westslope cutthroat trout.
97. The J-hook rock structures shall be constructed of rocks and boulders placed within a stream channel to act as a low level dam. Placement of these structures perpendicular to stream flow will decrease the stream gradient, dissipate stream energy and decrease stream velocity through an increase in water surface elevation immediately above the structure. Instream structures shall comply with the following criteria: (IDAPA 37.03.07 Rule 059). (An illustration of the J-hook design is located in the Fish and aquatic resources report, located in the project record.)

98. Maximum water surface differential across (upstream water surface elevation minus downstream water surface elevation) a drop structure shall not exceed two (2) feet. The Department of Environmental Quality shall approve the final elevation of any structure. (IDAPA 37.03.07 Rule 059)

99. Rock drop structures shall be constructed of clean, sound, dense, durable, angular rock fragments, and/or boulders of size and gradation, such that the stream is incapable of moving the material during peak flows. Where applicable, rocks shall be keyed into the stream banks to minimize the likelihood of bank erosion, (IDAPA 37.03.07 Rule 059).

100. National Marine Fisheries Service and U.S. Fish and Wildlife Service will be contacted if instream structure placement standards of the proposed action cannot be maintained or if effects not previously considered under the existing consultation occur.

101. All instream structures shall be constructed to facilitate fish passage and centralized scour pool development (IDAPA 37.03.07 Rule 059).

102. No construction equipment shall be operated below the existing water surface without specific approval from the Director except as follows: Fording the stream at one (1) location only will be permitted unless otherwise specified; however, vehicles and equipment will not be permitted to push or pull material along the streambed below the existing water level. Work below the water which is essential for preparation of culvert bedding or approved footing installations shall be permitted to the extent that it does not create unnecessary turbidity or stream channel disturbance. Frequent fording will not be permitted in areas where extensive turbidity will be created. (IDAPA 37.03.07 Rule 056)

103. When implementing noncommercial thinning activities within a Pacific Anadromous Fish Strategy riparian habitat conservation area, fall trees that will be left on the ground towards the stream channel to provide large woody debris in the stream channel.

104. Down woody material retention: Where possible, retain 15 tons/acre, but no less than 5 tons/acre; where feasible, retain an average length per acre of down-dead logs of the following diameters: ponderosa pine, Douglas-fir and spruce 12 inches dbh 50 linear feet per acre to meet Salmon National Forest Coarse Woody Debris (Forest Plan pg. IV-17 to18) requirements for site productivity.

105. No commercial harvest within Pacific Anadromous Fish Strategy riparian habitat conservation areas per Pacific Anadromous Fish Strategy guidelines.

106. Commercial logging camps, helicopter log landings/refueling sites/staging areas only to be allowed in locations preapproved by a contracting officer's representative, in coordination with the respective interdisciplinary team members and are located outside of Pacific Anadromous Fish Strategy riparian habitat conservation areas. Commercial logging camps and helicopter log landings/refueling sites/staging areas would have a developed site plan, in coordination with the respective interdisciplinary team members, to ensure all resources are protected on lands within the project area.

107. Fueling operations/storage would be governed by USDA Forest Service Timber Sale Special Contract Provision CT6.344 Prevention of Oil Spills (Idaho Forests)(01/2001).

108. Impact by skid trails on thinning units harvested during this project with conventional tractor/forwarder operations would be limited to less than 10 percent of the area. Skid trail gradient would be limited to a maximum 45 percent slope unless site specific analysis shows otherwise (Forest Plan pg. IV-34). Skid trails rehabilitation and water-bar spacing would use the guidelines in the Forest Plan (pg. IV-35). Water bar skyline corridors in units with erosive soils.

109. Revegetation may include, but would not be limited to seeding grasses, legumes, wildflowers and spruce seedlings. Planting and seeding should be dispersed to mimic existing patterns of the vegetative mosaic. Aspen regeneration would be encouraged. (See #78 for appropriate seed mixes).

110. When implementing noncommercial thinning activities within Pacific Anadromous Fish Strategy riparian habitat conservation areas felled trees will be left on the ground towards the stream channel to provide large woody debris in the stream channel.

111. Dozer constructed firelines would not be used. Existing roads within and between treatment areas would be used for containment lines as much as possible. Other containment lines as needed may be constructed. These lines may consist of fuel breaks with no traditional fire line construction, or traditional fire line construction approximately 18 inches wide that includes removal of all vegetation and other fuel down to mineral soil. Fireline constructed parallel to water courses would be avoided. Hose lays and wet line are the preferred containment method. If traditional fire line construction is used, Minimum Impact Suppression Techniques would be used. All firelines would be rehabilitated by water barring and pulling in debris as available.

112. Prescribed burn plans and water source use would follow mitigation measures stated in the Biological Assessment / Biological Evaluation of Effects to Threatened, Endangered, Proposed and Sensitive Aquatic Species Programmatic for Wildfire Suppression on the Salmon-Challis National Forest (December, 2010).

113. No mechanical piling of slash or natural forest fuels is allowed in Pacific Anadromous Fish Strategy buffers.

114. Piles shall be constructed by hand and piles shall be burned at least 20 feet from the ordinary high water mark of live streams.

115. Machine piling will not be allowed in riparian habitat conservation areas.

116. Deep Creek, Hammerean Creek and Johnson Gulch culvert installations would follow design features as stated in the December 1, 2011 Biological Assessment for Restoration Activities at Stream Crossings Affecting the Habitat of ESA-listed Fish Species on National Forests and Bureau of Land Management Public Lands in Idaho and will meet associated requirements as stated in US Fish and Wildlife Service June 15, 2012 (US Fish and Wildlife Service 2012) and the National Marine Fisheries Service June 4, 2012 (USDC National Marine Fisheries Service 2012) Biological Opinions. These culverts will be designed to pass 100-year flood flow and bank full heights without constriction and provide aquatic species passage.

- For unoccupied habitat in perennial and intermittent channels:
  - Simulate bankfull cross-section and slope of the natural channel;
  - Design project to accommodate valley and floodplain processes;
  - For all crossings, design project to accommodate 100-year flows or, alternatively, provide for site-specifically analyzed recurrence flows;
  - For crossings determined to pose a substantial risk, design project to accommodate 100-year flows and associated sediment and debris movement; and
  - Provide for ecological connectivity.

117. Level 1 roads remaining on the Forest Service system would receive the following treatments upon completion of activities: Compaction of the road surface would be relieved and a seed bed prepared through either ripping or scarifying the road surface depending on the level of compaction.. (See also #28).

118. Do not blade or pull roadsides and ditches unless absolutely necessary. Minimize soil surface disturbance and contain bladed material on the roadway. (See also #28).

119. Disturbed sites would be prepared to provide a seedbed for reestablishment of desirable vegetation. Practices may include contouring, terracing, ripping, and scarifying.

120. Stop hauling logs or other forest products to protect road investments and adjacent resources when:

- Visible rutting (4 inches deep) occurs in placed aggregate surfaces.
- Rut depth in native surfaced road compromises effective drainage.

Rutting is defined as the displacement of road surface materials resulting from the material in the surface or base course being saturated. A four inch rut depth is the trigger point for severe rutting. (See also #28).

121. On system roads, remove and pile or scatter all slash greater than 1 inch in diameter and 2 feet in length outside the established clearing limits of the road. On temporary roads, conserve slash for use in reclamation of the roadway by storing along the roadway in a manner that does not interfere with the use of the road.

122. All water drafting sites will be approved by the District Ranger in coordination with the fishery biologist and the sale administrator and/or Forest roads engineer. Temporary Water rights would be obtained by the Forest before any water drafting for dust abatement occurs. These drafting sites will be located in streams so as not to disturb spawning fish and their redds. Water drafting activities will not physically block fish migration or reduce streamflows to the point of preventing fish migration Pump intake screens shall have openings not exceeding 3/32-inch diameter and a surface area proportionate to the pump intake capacity. The objective is to provide a positive barrier to fish entrainment and maintain a velocity of no more than 0.2 feet per second at the surface of the intake screen to avoid impingement for fingerling-sized fish (USDC National Marine Fisheries Service 1996). Intake screens should be submerged to a depth of at least one screen radius (USDC National Marine Fisheries Service 1996). All pumps in waters within the Salmon-Challis National Forest will have these screens attached even if listed fish are not believed to be present.

123. All newly constructed temporary roads will be decommissioned by fully recontouring the road template and stabilizing with native vegetation (seeding) the disturbed area during the appropriate time of the year after the decommissioning. Monitoring of the decommissioned temporary roads will occur the year after seeding to determine if additional revegetation work is required. (See also #30).

124. Activities associated with decommissioning non-system roads and closed system roads may include decommissioning roads by recontouring road templates and stabilizing with native vegetation (seeding) and reducing traffic or maintenance on roads adjacent to streams. If the roads identified for decommissioning are well vegetated and closed to traffic, a less ground disturbing method of decommissioning will be used that only treats the beginning of the road so as not to encourage unwanted motorized use. The decommissioning activities of non-system roads and closed roads will be closely coordinated by the appropriate interdisciplinary team members and agreed to by a Forest Service Hydrologist. Monitoring of the decommissioned non-system roads and closed roads will occur the year after seeding to determine if additional revegetation work is required.

125. Due to risk of erosion and damage from roads and constructed skid trails inherent in winter logging, at a minimum the following shall apply: (4-21-92)

- Roads to be used for winter operations must have adequate surface and cross drainage installed prior to winter operations. Drain winter roads by installing rolling dips, drivable cross ditches, open top culverts, outsloping, or by other suitable means. (4-21-92)
- During winter operations, roads will be maintained as needed to keep the road surface drained during thaws or break up. This may include active maintenance of existing drainage structures, opening of drainage holes in snow berms and installation of additional cross drainage on road surfaces by ripping, placement of native material or other suitable means. (4-21-92)

Heritage Resources

126. Avoid and/or protect heritage sites identified as eligible to the National Register of Historic Places.

127. If unanticipated heritage resources are discovered during project implementation, all work in that area will cease and the North Zone Archaeologist will be notified within 24 hours to assess the significance of the find and the need for further consultation with the State Historic Preservation Office and appropriate tribal parties.

128. To minimize the potential effect of actions related to road maintenance, use, reopening, and closure during the project, the following protection measures for heritage resources must be followed. All ground disturbing activities such as vegetation removal, scarification, grading, and berming would be carried out entirely within the existing road footprint. Material for road closure berms must be taken from the existing roadbed or a predesignated area and have no effect on known historic properties. All vehicles must remain on the road at all times. If any staging or storage areas must be established outside the existing roadbed, these areas would be situated within existing heritage inventory areas and the action must be determined through consultation with the North Zone Archaeologist to have no effect on known historic properties. Depending on the context of these locations and the scale of the proposed work, an on-site archaeologist may also be required to monitor the work.

Recreation

129. Where temporary roads, fireline, skid trails, etc., cross or are concurrent with the trails, the cut and fill prism of the trail would be restored to its original profile. Rehabilitate any damage to trail from implementation of project activities.

130. For the safety of the public, temporarily close roads and trails when project activities are taking place within the road and trail corridors.

131. Signs will be placed in key locations to provide information to recreationists about reducing the risk of fire and other project objectives.

132. Do not use developed recreation sites including campgrounds and trailheads for landings or staging areas to prevent displacement of recreationists and potential damage to site facilities.

133. Do not perform project activities during the winter within or immediately adjacent to the Chief Joseph Cross Country Ski Area, the Anderson Mountain Road, or the Lost Trail Ski Area.

134. The Lost Trail Ski Area and Chief Joseph Cross Country Ski Area would be advised of the project implementation schedule prior to initiation of project activities that would be done in and around the special-use permit boundary.

Wildlife

135. Forest Plan wildlife standards and guides for Management Areas 3A-4A (pg. IV-110 to 112) and 5A (pg. IV-121) would be incorporated in thinning and prescribed burn prescriptions with emphasis on big game security displacement areas and cover requirements, designated big game winter range, unique habitats, ridgetop ecotones, and habitats for special status species and other forest associated wildlife species.

- Manage key big game winter ranges to achieve and maintain big game population objectives.
  - See "Elk Habitat Relationships for Central Idaho" for partial list.
  - Do not eliminate presence of any desirable browse species.
- Wildlife Standards and Guidelines for 5A, 5B, and 5C
  - Manage big game summer ranges to support target populations on each game management unit.
  - Manage long narrow stringers (less than 1/4 mile wide) and natural forested islands (less than 25 acres) on big game summer and winter ranges to support target* populations of big game.
  - Manage abrupt ridgetop ecotones to maintain the integrity of at least 75 percent of the natural linear distance. Individual cutting unit boundaries will not exceed 1,000 feet along the ecotone, "Wolfy"-type trees will be left along ridgetops even within the cutting units. Unless the tree is mistletoed.
  - Design first entry cutting units within cover blocks so that no point within the harvest area is more than 800 feet from cover.

    Cover patches will be designed to be at least 600 feet wide and should be at least 25 acre Even-age harvest units (clearcuts and seed cuts of a shelterwood system) will no longer be considered forage areas when regeneration reaches the stage of growth and density such that at a distance of 200 feet 90 percent of an adult elk is hidden from view. On the average, this condition would be met when regeneration is 8 feet tall with a minimum stocking of 200 trees per acre, but may vary on a site specific basis depending on slope, terrain, species, and uniformity of stocking in size if silviculturally and economically feasible.
  - Plan logging and road building activities to provide suitable displacement areas for big game.
  - When roads to be left open traverse cover blocks. Where logging systems permit, and as needed to meet habitat capability objectives. Provide cover for big game at least two sight distances wide along one half of the length of road through the cover block.
  - Target populations are the State goal populations within game management units as established in the 1986-1990 big game management plans developed by the Idaho Department of Fish and Game.

136. Restrict harvest and human disturbance activities within ½ mile radius of active Great gray owl, Northern goshawk, Coopers Hawk and Sharp-shinned hawk nests and 1/8 mile radius of all other active raptor nests (except kestrel)(Forest Plan p. IV-20).

- In the event a goshawk territory is located, appropriate management prescriptions would be used to maintain the nesting habitat characteristics (see Squires and Kennedy 2006) of the stands

surrounding nest sites and alternate nest sites (i.e., 6 nest sites where each site is 30ac, for a total of 180ac). These include:

- Within the nest core area, no treatment activity should occur;
- Within the post-fledging area (radius equals 0.3 miles) surrounding an active nest site, treatments may occur outside the breeding and post-fledging season (March 1st through August 31st) and should maintain canopy closure at or above 60 percent, where available, or at the canopy closure available if less than 60 percent.
- Within the larger home range centered on a nest site, maintain a canopy closure at or above 40 percent, where available.

137. Meadow restoration activities are as follows:

- Prescribe burn meadows during dormant period (August thru March) to retain grasses.
- Do not cut down standing snags and girdled trees during fuels treatments or treatment preparation. If there is a concern about forest fuels at tree bases, dig a fireline around the tree. The goal is to provide the largest-diameter standing snags available for the long term in and near meadows.

138. Manage aspen for perpetuity wherever stands occur within the project area (p. IV-18 Forest Plan). In upland areas, remove of all conifers within aspen stands and within 100-150ft of stands. Coordinate with hydrology and fisheries resource specialists for any proposed treatment in riparian zones or in riparian habitat conservation areas.

139. Snag retention guidelines as specified in the Forest Plan (pg. IV-17) for harvest units and in untreated areas within the project boundary would be met through contractual provisions. (NOTE that the Forest has followed revised snag guidelines which allow for minimum numbers of snags by species and size class; see attached dated 16 July 1991)

- Provide at a minimum, an average of 20-30 hard snags per 10 acres of the following minimum diameters in harvest units (where feasible).
  - Douglas-fir, ponderosa pine, and spruce/fir: 10 inches dbh
  - Aspen and lodgepole pine: 8 inches dbh.
- Leave groups of snags where appropriate.

140. Log debris retention as follows (Forest Plan (pg IV-17,18) or may be substituted as indicated in design criteria 5 above:

- Douglas-fir, ponderosa pine, or spruce/fir - 12 inch diameter, 50 linear ft/acre.
- Aspen and lodgepole pine - 10 inch diameter, 33 linear ft/acre.

141. Recommend retaining two slash handpile per acre for habitat diversity in select units. Identify retention piles at edges of units to provide for habitat connectivity. This requirement does not apply to fuels reduction units adjacent to private property.

142. Identify patches of mountain mahogany during the analysis process. Avoid ignition in mahogany stands and piling fuels in and near mahogany, to the extent possible. Consider placing a fireline or otherwise protecting mahogany stands from burning if they are small inclusions in a larger vegetation type. Avoid prescribed fire in identifiable patches of mountain mahogany. Avoid direct fire ignitions in mountain mahogany.

143. Designated old growth

- Existing roads in designated stands should be used only to facilitate treatments designed to maintain/enhance old growth characteristics
- Existing closed or non-system roads will not be opened nor used for vehicle access;
- Recommended burn plan objectives for old growth stands include:
  - maintain large diameter ponderosa pine and Douglas-fir (use dbh classes from Hamilton 1993);
  - maintain decadent component of existing stands;
  - maintain log debris and snags;
  - maintain shrub understory;
  - include treatments such as ladder and tree-well fuel reduction for each old growth unit only if needed prior to prescribed burning so that the risk of an old growth stand being consumed by fire in its entirety is reduced.
  - prescribed fire should not be initiated within old growth stands, but may be allowed to back down in to stands.

- Winter range design criteria for MA 4A:
  - Retain desirable browse species (Forest Plan IV-111) (i.e., mountain mahogany, sagebrush, or bitterbrush, especially on upper third of slopes);
  - Restrict aerial/motorized use from December 1st - April 15th except upon site-specific clearance with wildlife biologist.

144. Elk security: During the general elk and deer rifle season (currently October 10th – November 8th; future dates are subject to change) no commercial or precommercial thinning activities would occur within 0.5 mi from elk security areas. In addition, no permitted or administrative use of vehicles would be allowed on these gated roads (i.e., Hammerean Rd (Rd#2001), Upper Lick Cr Rd (Rd#318), and Vine Cr Rd (Rd#157) during general hunting season. Restriction of vehicle use also applies to prescribed burning during general hunting season.

145. Sensitive plants/Lemhi penstemon: Avoid burning during the flowering period (May 15 to June 30) in all mechanical and prescribed fire treatment units from Votler Creek north to Johnson Gulch all west of Highway 93, except upon site specific discussion with qualified specialist.

146. Ridgetop habitat: retain mature, large diameter (>18in dbh) conifers for sensitive species/flammulated and boreal owls. Modify prescription for thinning to SDI 100 within 200ft of edge of units along ecotones.

147. Sensitive species/great gray owl: Retain all large diameter (>18in dbh) broken top snags as feasible within one tenth (0.1) mile of meadows along the Anderson Mountain Road (Rd#600081), Pierce Creek Rd (Rd#600081A) and the Saddle Mountain Road (Rd#60703).

148. Fall prescribed burning is encouraged, if burn objectives can be met, to avoid reproductive seasons for resident and migratory birds.

Other Resources

149. Avoid or protect special use water pipelines, phone lines and other utilities.

150. Thinning and prescribed burn activities would be coordinated in the advance of each operating season with private land holders, concerned residents, Idaho Fish and Game – avoidance of wolf den sites and management activities (trapping); Outfitter/Guides – spring and fall activities.

151. Coordinate activities with companion treatments that may occur on private lands. Post signs and use other public media such as local newspapers and radio stations advising the public when project activities are going to take place. Notify fire departments, sheriff's department, outfitter-guides and concerned residents when prescribed burning occurs.

Monitoring

Information gathered before, during and after implementation of activities is used to determine the effectiveness of the project's design and associated design features. This establishes a feedback mechanism so management can develop and employ an adaptive learning curve.

Monitoring Upper North Fork Project activities would consist of several types of monitoring – implementation monitoring and effectiveness monitoring. Implementation monitoring would measure whether applicable design criteria, best management practices and Forest Plan standard and guidelines are correctly implemented. Effectiveness monitoring measures whether the treatments implemented with the design criteria, best management practices and Forest Plan standards and guidelines are achieving the desired out comes. Effectiveness monitoring would measure how implemented treatments are effective at protecting as well as achieving the project goals.

A sample of each type of treatments in the Upper North Fork Project would be selected each year for monitoring and evaluation. Monitoring would occur through prefield review and field visits by forest personnel and collaborative members. The prefield review would include reviewing implementation notes and applicable standards, guidelines, design criteria and best management practices. Field visits would be accomplished in an interdisciplinary fashion to facilitate cross-sharing of effectiveness and identification of needed changes to project activities. The monitoring information collected would be evaluated and documented along with any recommended changes in an annual report.

In addition, the Lemhi County Forest Restoration Group plans to conduct third party monitoring. Third party monitoring is an ongoing and successful component of the local collaborative efforts and will continue to be a vital component for the Upper North Fork Project. Examples of monitoring efforts that may be completed include pre and post implementation photo points, vegetation transects in designated old growth stands, and noxious weed inventories.

Appendix B – Site-specific Forest Plan Amendments

Amendment 1: Forest Plan amendment to utilize wildfire for multiple objectives in the project area

Background

The Salmon National Forest Land Management Plan was approved in December 1988. The Plan was written to provide the Forest with management directions for the next 10-15 years. Goals and objectives for management of the natural resources were identified along with scheduled projects to achieve them. These schedules were made with the best current information available and with the knowledge that they would be altered as management situations changed, as new issues and concerns surfaced and better predictions for future needs and demands were made. The Plan was designed to be changing and dynamic document that is responsive to the current trends and demands of the public we serve.

The Plan provided direction and guidance that reflected federal fire management policies in place at that time. It described fire suppression strategies as the primary response strategy available to Forest Service managers, thus limiting the flexibility of managers to consider more appropriate options to manage unplanned wildland fire.

The 1995 Federal Wildland Fire Management Policy and Program Review (USDA Dec 1995) recognized that the exclusion of fire has resulted in dramatic changes in expected fire behavior in rangeland and forested ecosystems. It emphasized the need for integration of fire into land management planning and implementation, as well as the involvement of all affected landowners and stakeholders. Federal land management agencies have operated within this policy since its adoption. Operational clarification and continuing guidance supporting implementation of this policy was issued in 2003, 2008 and 2009.

Proposed Action

The deciding Official proposes to amend the Salmon Land and Resource Management Plan Forest-wide standards and guides by an standard and guide addition to Fire Planning and Suppression management activities and replacement of three standards and guides for management activity Escaped Fire Suppression for the Upper North Fork HFRA Ecosystem Project area as follows:

Fire Planning and Suppression – Addition of standard and guide:

> Manage lightning caused fires to play, as nearly as possible, their natural ecological role within the Upper North Fork HFRA Ecosystem Project boundary.

Escaped Fire Suppression – Replace standards and guides a through c (of General Direction 1) with:

> One or more fire management strategies may be considered and implemented for any unplanned wildland fire to achieve a variety of project management objectives, while minimizing negative effects to life, investments and valuable resources.

This amendment only applies to National Forest System lands under the management of the Salmon-Challis National Forest within the Upper North Fork HFRA Ecosystem Project boundary for the time period of implementation of the project, but excluding the Allan Mountain Research Natural Area. Language within the 1988 Establishment Record for the research natural area determined that a.) A high level of fire protection will be maintained. Fire will not be used as a tool to induce or maintain seral species. Wildfires that originate within the area will be suppressed as soon as practicable by methods that

will cause least disturbance; and b.) Neither livestock grazing nor prescribed burning will be used in the Allan Mountain Research Natural Area to induce or maintain seral species.

This proposed site specific Forest Plan amendment constitutes an effort to readjust and clarify standards and guides to reach the goals and objectives of the Plan. It would allow the line officer to manage unplanned wildland fire to play a natural role in the Upper North Fork Ecosystem Restoration Project Area. It applies to unplanned, naturally-ignited (lightning-caused) wildland fire. Actions allowed under the amendment would continue to be constrained by federal wildland fire management policy directions and implementation compliance processes already in place.

This amendment responds to recent changes in national fire management policies with recognition of the role of wildland fire as an essential ecological process and natural change agent on the landscape. Fire activity has increased in recent years on the Salmon-Challis National Forest as well as many areas of the western United States. This amendment provides opportunities to reduce costs associated with wildland fire management by not implementing full fire perimeter control tactics where it is not needed.

The amended fire management direction applies to the management of unplanned, naturally-caused fires only. There will be no change to the management of unauthorized human-caused fire. In compliance with the Federal Wildland Fire Management Policy (Ibid.), all human-caused wildland fires would continue to be suppressed at the lowest costs, with the fewest negative consequences with respect to firefighter and public safety.

Table 6 summarizes current Forest-wide Direction (pp IV-68-70) and the recommended changes for wildfire in the project area.

Table 6. Current Forest wide Direction and the recommended changes for wildfire in the project area

Management Activity	General Direction	Existing Standards and Guidelines	Proposed Amended Standards an Guidelines
Fire Planning and Suppression (pp. IV-68, 69)	1. Provide a level of protection from wildfire that is cost efficient and that will meet management objectives for the area considering the following: A. The values of the resources that are threatened by fire; B. The probability of fire occurrence; C. The fuelbed that fires will probably occur in; D. The weather conditions that will probably influence fires that occur; E. The costs of fire protection programs (FFP and FFF). F. The social, economic, political, cultural, environmental, life and property concerns; and, G. Management objectives for the area. H. Use the fire management analysis process (FSH 5109.19) for this analysis.	None	a. Manage lightning caused fires to play, as nearly as possible, their natural ecological role within the Upper North Fork project boundary.
Escaped Fire Suppression (pp. IV-69, 70)	1. Take suppression action on all escaped fires considering the following: A. The values of the resources threatened by the fire (both positive and negative); B. Management objectives for the threatened areas; C. The fuel beds the fire may burn in; D. The current and projected weather conditions that will influence fire behavior; E. Natural barriers and fuel breaks; F. Social, economic, political, cultural and environmental concerns; G. Public safety; H. Firefighter safety; and, I. Costs of alternative suppression strategies. Use the escaped fire situation analysis to make this determination (FSM 5130.31). J. Private property values.	a. Control will be the suppression strategy during fire season on all fires that occur below 8000 feet, outside the Frank Church – River of No Return Wilderness. b. Containment or confinement strategies may be chosen for pre and post season fires and those above 7000 feet. The general fire season is May 10 through October 20 with the primary fire season from June 15 through September 30. c. The Wilderness Fire Management Plan for the Frank Church – River of No Return Wilderness will be used for fire management strategies in wilderness.	a. One or more fire management strategies may be considered and implemented for any unplanned wildland fire to achieve a variety of project management objectives, while minimizing negative effects to life, investments and valuable resources.

Management Activity	General Direction	Existing Standards and Guidelines	Proposed Amended Standards an Guidelines
	2. Although tractor line construction is often prudent for cost, speed, and safety reasons, suppression actions can sometimes pose a greater threat to resource values than does the fire itself. The use of tractors for fireline construction may sign1ficantly affect watershed, fisheries, wildlife, visual, and recreational values. 3. The incident commander is responsible for consulting the resource advisor whenever tractor line construction is being considered and/or planned. The resource advisor will keep the Forest Supervisor and the incident commander informed of all tactical proposals which have a potential for significant resource impacts.	a. Tractor line width must be commensurate with the situation at hand. Lines in excess of one blade wide are rarely needed and will not be permitted without prior approval of the Forest Supervisor, expect in emergency situations. Safety Zones up to 300 feet wide and vehicle turnouts may be constructed as necessary. b. Every effort will be made to perform rehabilitation work concurrently with line construction. Wildlife openings, at intervals no greater than 200 feet, will be built into slash windrows during construction. Water bars will be constructed as soon as possible after construction, based on intended use of the line, equipment availability, and safety considerations.	No Change

Amendment 3: Forest Plan amendment to modify Pacific Anadromous Fish Strategy riparian habitat conservation areas to achieve fuels reduction objectives in the project area

Background

The Salmon National Forest Land Management Plan was approved in December 1988 and amended in 1995 by the Pacific Anadromous Fish Strategy Environmental Assessment (Interim Strategies for Managing Anadromous Fish Producing Watersheds on Federal Lands in Eastern Oregon and Washington, Idaho, and portions of California) which provides directions for riparian habitat conservation areas for anadromous streams. This direction prohibits commercial timber harvest within Pacific Anadromous Fish Strategy riparian habitat conservation areas. Within the project area there are currently; 37.5 stream miles with a 300 foot riparian habitat conservation area buffer, 47.5 stream miles with a 150 foot riparian habitat conservation area buffer and 57.6 stream miles with a 100 foot riparian habitat conservation area buffer. The Pacific Anadromous Fish Strategy standard widths defining riparian habitat conservation areas are as follows (Appendix C: pp C6-C-9):

a. 300 feet on either side of fish bearing streams,

b. 150 feet on either side of permanently flowing non-fish bearing streams,

c. 150 feet around the outer edges from riparian vegetation for ponds, lakes, reservoirs and wetlands greater than 1 acre,

d. 100 feet on either side of seasonally flowing or intermittent streams and around the outer edges from riparian vegetation for wetlands less than 1 acre, landslides and landslide prone areas.

Proposed Action

Commercial thinning (timber harvest) is one of the proposed vegetation management tools that are being utilized for decreasing tree density, ladder fuels and increasing crown spacing in order to achieve the fuels reduction objective in this Healthy Forest Restoration Act project. The above Pacific Anadromous Fish Strategy riparian habitat conservation area widths would be modified (reduced in width) to existing roads in specific treatment units allowing commercial thinning (timber harvest) above the edge of the road prism outside of the modified riparian habitat conservation area. This modification would only take place where there is a road within the riparian habitat conservation area buffer between the unit boundary and the stream channel. Riparian management objectives defined in the Pacific Anadromous Fish Strategy would be attained in these modified riparian habitat conservation areas as directed in appendix C (pp C4 - C6). Riparian habitat conservation area modifications would only apply for approved project activities listed in the eleven treatment units below for the term of the Upper North Fork HFRA Ecosystem Restoration Project. This amendment only applies to National Forest System lands under the management of the Salmon-Challis National Forest within the Upper North Fork HFRA Ecosystem Project boundary for the time period of implementation of the project.

Table 7 summarizes Pacific Anadromous Fish Strategy direction for riparian habitat conservation areas (C9-C18) and the recommend units where modification of riparian habitat conservation area buffer widths are needed for fuels reduction commercial thinning in the project area.

Table 7. Units with proposed modified riparian habitat conservation areas (RHCA)

PACFISH Direction, Standards & Guidelines	Unit Number, Treatment Type, Vicinity Location			Acres added by RHCA Modification
Timber Management TM-1; page C-10 Prohibit timber, including fuelwood cutting, in riparian habitat conservation areas, except as described below. Do not include riparian habitat conservation areas in the land base used to determine the allowable sale quantity, but any volume harvested can contribute to the timer sale program. Where catastrophic events such as fire, flooding, volcanic, wind, or insect damage result in degraded riparian conditions, allow salvage and fuelwood cutting in riparian habitat conservation areas only where present and future woody debris needs are met, where cutting would not retard or adverse effects on listed anadromous fish can be avoided. For watersheds with listed salmon or designated critical habitat, complete watershed analysis prior to salvage cutting in riparian habitat conservation areas. Apply silvicultural practices for riparian habitat conservation areas to acquire desired vegetation characteristics where needed to attain riparian management objectives. Apply silvicultural practices in a manner that does not retard attainment of riparian management objectives and that avoids adverse effects on listed anadromous fish.	16	shaded fuel break	Ridgeline SW of Lost Trail Pass ski area	1.3
	17b	shaded fuel break	East of Moose Cr Estates	1
	85	skyline com. thin	N of Votler Cr, SW of Gibbonsville	0.1
	87	skyline com. thin	N of Votler Cr, W of Gibbonsville	0.2
	112	tractor com. thin	W Hammerean Rd by Twin & Deep Creeks	2.3
	121	tractor com. thin	W of Hwy 93 & Royal Elk Ranch	2.5
	122	skyline com. thin	W of Hwy 93 & Royal Elk Ranch	4.3
	185	tractor com. thin	N Granite Mtn by Johnson Cr	1.7
	196	skyline com. thin	W of Hwy 93, N Friedorf Crk	1.9
	203	skyline com. thin	N of Votler Cr, SW of Gibbonsville	0.5
	227	shaded fuel break	Hwy 93 corridor south of Twin Creek	58.9
	Total			**74.7**
	Rationale			
• Interim Riparian Management Objectives (RMOs); page C-6 • Pool Frequency – varies by channel width 96-9 pools per mile with wetted with of 10 to 200 feet; • Water Temperature – No measureable increase in maximum; 64F migration/rearing; 60F spawning • Large Woody Debris – (Idaho) >20 pieces/mi; >12 in dia.; >35 ft. length • Width/Depth Ration - <10, mean wetted width divided by mean depth	The proposed modified riparian habitat conservation area buffer widths are not expected to allow any additional sediment delivery to streams in the project area. There would be no change in sediment risk from modifying riparian habitat conservation area buffers in the listed 11 units. Thinning treatments were designed to maximize the maintenance and enhancement of the Riparian Management Objectives by maintaining riparian function in the short term and through protecting riparian habitat conservation area from high severity fire, improve riparian function over the long term. The project's proposed activities and objectives are consistent with the Pacific Anadromous Fish Strategy Timber Management standards/guidelines			

Maps of the Selected Alternative (separate)

Map 1 - Project area map displaying project area boundary, communities at risk, designated roadless areas, wildland-urban interface and the community protection zone

Map 2 – Alternative 1 large map

Map 3 - Alternative 1 - map index

Map 4 - Alternative 1 map 1

Map 5 - Alternative 1 map 2

Map 6 - Alternative 1 map 3

Map 7 - Alternative 1 map 4

Map 8 - Alternative 1 map 5

Map 9 - Alternative 1 map 6

Map 10 - Alternative 1 map 7